The Economist

Central banks' balancing act

How TikTok broke the ad business

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A special report on video games

MARCH 25TH–31ST 2023

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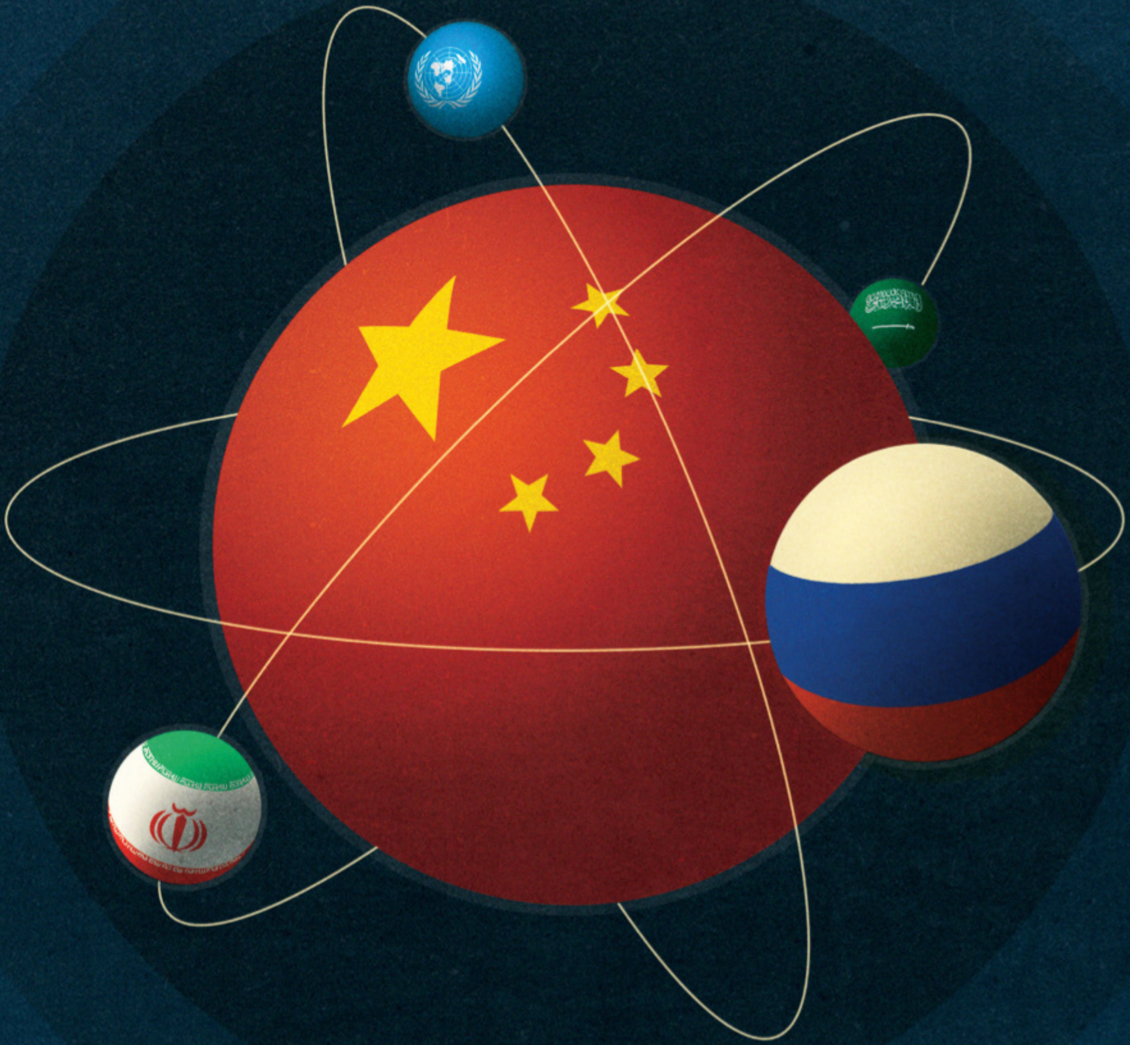

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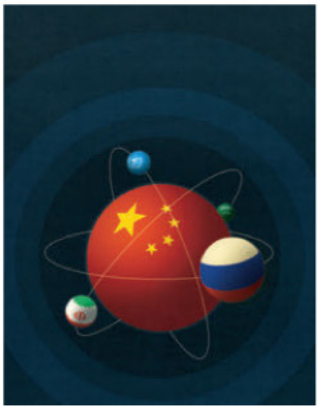

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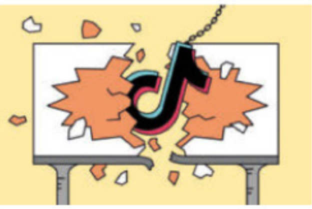

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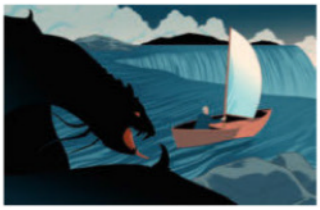

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The world this week Politics

Vladimir Putin, Russia's president, hosted **Xi Jinping**, his Chinese counterpart, in Moscow. Mr Putin endorsed a Chinese plan for a ceasefire and negotiations in the war in Ukraine. The plan does not acknowledge Russia's aggression or Ukraine's territorial integrity. Volodymyr Zelensky, Ukraine's president, has rejected it, as have Western leaders. Ukraine said an explosion had damaged a Russian munitions train in Crimea, while Russian missiles struck Ukrainian cities, killing civilians.

A grand jury in Manhattan reconvened to consider charges against **Donald Trump**. The former American president is suspected of falsifying business records to hide hush money paid to Stormy Daniels, whom he allegedly slept with in 2006. Prosecutors must prove that this facilitated a second crime, of falsifying campaign expenses. The grand jury is expected to vote on whether to indict Mr Trump in the coming days.

Nicolás Maduro, **Venezuela's** autocratic president, appointed the head of PDVSA, the state oil company, as his new oil minister. Pedro Rafael Tellechea replaces Tareck El Aissami, an ally of Mr Maduro who resigned unexpectedly this week. More than 20 PDVSA officials have been detained as part of a corruption probe. The company is reportedly owed over $21bn in unpaid bills. The probe could allow Mr Maduro to sideline potential rivals.

In **Colombia** Gustavo Petro, the left-wing president, suspended a ceasefire with the Gulf Clan, the country's largest drugs gang. Mr Petro has grand plans for "total peace" in the country; the ceasefire was at the heart of these ambitions.

Uganda passed a law that would impose long prison sentences on anyone who says they are gay or lesbian, or on organisations or journalists that promote gay rights.

Somalia and international aid agencies said that 43,000 people died in Somalia's **drought** last year in the first official estimate of its toll. They estimated that 18,000-34,000 people may die from hunger in the first six months of this year.

Better call Sall

Macky Sall, the president of **Senegal**, said that in his interpretation of the constitution its two-term limit would not prevent him from running again in next year's election. Mr Sall, who was elected in 2012 and again in 2019, has not yet declared his intention to run, but is expected to do so.

Olivier Dubois, a French journalist, and Jeffery Woodke, an American aid worker, were freed by jihadist groups who had been holding them in various parts of **the Sahel**. Mr Dubois was abducted in Mali in 2021 and Mr Woodke was snatched in Niger in 2016.

Israel's parliament, reflecting the influence of parties on the far right, voted to let Israeli citizens back into four Jewish settlements in the West Bank which had been evacuated after Israel disengaged from Gaza in 2005. Israel's high court had previously ruled that the settlements were on private Palestinian land.

British MPs grilled the former prime minister, **Boris Johnson**, over the "partygate" scandal. Mr Johnson is accused of deliberately misleading the House of Commons in his account of several boozy gatherings in Downing Street during the pandemic lockdown. If found guilty, MPs could suspend him from Parliament.

A scathing report found London's **Metropolitan Police Service** guilty of "institutional racism, misogyny and homophobia" and recommended that Britain's largest police force should be overhauled or risk being broken up. The report was commissioned by the Met after the rape and murder of Sarah Everard by a serving officer in 2021.

MPs passed a new post-Brexit deal for **Northern Ireland**, negotiated between the British government and the EU. But two former prime ministers, Mr Johnson and Liz Truss, rejected it, as did the Democratic Unionist Party, the province's main unionist party. The DUP fears that it does not adequately protect Northern Ireland's place in the United Kingdom's internal market.

Emmanuel Macron's government survived a no-confidence vote in France's parliament after pushing through his hugely unpopular pension reform, which raises the minimum retirement age from 62 to 64, without a vote. Elisabeth Borne will stay on as prime minister, but the president will have even more trouble governing and street protests are expected to continue.

The IMF agreed to lend $15.6bn to **Ukraine**, its first loan to a country at war. The fund recently changed its terms to allow loans to countries facing "exceptionally high uncertainty". Ukraine said the money would support infrastructure and ensure the country's economic stability.

The IMF also approved a $3bn bail-out for **Sri Lanka**. The country has been beset by severe shortages and high inflation. The loan will be issued in nine tranches, each conditional on Sri Lanka's adoption of reforms, including a restructuring of its reported $95bn-worth of public debt.

Thailand's prime minister, Prayuth Chan-ocha, dissolved his country's parliament, paving the way for elections in May. Mr Prayuth, a former general who came to power in a coup in 2014, will run for re-election. But his bid to extend his military-backed rule may be thwarted: Paetongtarn Shinawatra, the leading opposition candidate, is already significantly ahead in the polls.

Australia's prime minister, Anthony Albanese, revealed the question that will be asked in a national referendum about recognising **Aboriginal people** in the country's constitution. A "yes" vote would create a body to advise parliament on policies and projects for Aboriginal communities. The referendum will be Australia's first in 24 years.

The Intergovernmental Panel on Climate Change published its "synthesis report", reviewing the scientific evidence relating to **climate change**. It reiterates scientists' message that rising temperatures are already having more severe impacts than expected. To meet climate goals, greenhouse-gas emissions must peak in the next few years—but they are predicted to keep rising beyond then.

Shiny happy people

Covid-19 has not permanently dampened people's spirits. The **World Happiness Report** surveyed more than 100,000 people, asking them how they felt about their lives. The global average score in 2020-22 was as high as in 2017-19, before the pandemic. Among the 137 countries surveyed, Finland was the happiest; Afghanistan the most glum.

The **Federal Reserve** raised its benchmark interest rate by another quarter of a percentage point and signalled that more rate increases could come in its fight against inflation, despite higher rates triggering a series of bank failures. In a statement, the Federal Open Market Committee said America's banking system was sound and resilient. The committee voted to raise the federal funds rate to a target range of 4.75% to 5%, its highest since 2007. The decision followed the European Central Bank's decision to lift rates on March 16th.

Banking turmoil

America's treasury secretary, Janet Yellen, ruled out an expansion of **bank-deposit insurance** or blanket guarantees for savers after four bank failures in 11 days. Her comments came more than a week after the Treasury, the Fed and the Federal Deposit Insurance Corporation took swift action to protect depositors at Silicon Valley Bank, which specialised in banking services for tech startups, and Signature Bank, which is based in New York. Yet on March 22nd Mr Powell said that depositors "should assume" they are safe.

UBS, Switzerland's biggest bank, acquired **Credit Suisse**, its troubled rival, in an all-share emergency deal brokered by Swiss authorities for around SFr3bn ($3.2bn), a 60% discount on Credit Suisse's stockmarket valuation. Holders of "Alternative-Tier 1" bonds issued by Credit Suisse were written off altogether. FINMA, the Swiss financial regulator, defended its decision to write down the bonds.

First Republic Bank, a lender based in California, has hired Lazard and JPMorgan Chase, two investment banks, as advisers amid discussions with potential investors and government officials to shore up its balance-sheet. It follows attempts to rescue the lender by 11 Wall Street banks. First Republic's share price has fallen by 89% this month.

Inflation in Britain rose unexpectedly in February. Annual consumer-price inflation rose to 10.4% in February, up from 10.1% in January. That was higher than the 9.9% forecast by analysts.

Inflation in **Canada** eased to 5.2% in February, down from 5.9% in January. It follows the Bank of Canada's decision to keep interest rates unchanged for the first time in nine meetings, making it the first central bank across the G10 group of large economies to pause its rate-tightening cycle.

Coinbase, a crypto exchange, received a notice from the Securities and Exchange Commission, America's main financial regulator, warning it of potential violations of securities law. Coinbase shares fell by more than 15% in extended trading on Wednesday.

The boss of **TikTok**, a video-sharing app, was due to appear in front of America's House of Representatives Energy and Commerce Committee on March 23rd, after *The Economist* had gone to press. In prepared remarks released ahead of the hearing, TikTok's CEO, Shou Zi Chew, said the company would never share American user data with the Chinese government. Lawmakers have raised national-security concerns about TikTok over its links to China through its Beijing-based parent, ByteDance.

The earnings of **commodity traders** soared in 2022, with gross profits hitting a record of more than $115bn, up by 60% from the previous year. Profits were driven by price volatility as a result of Europe's energy crisis, which was sparked by the invasion of Ukraine.

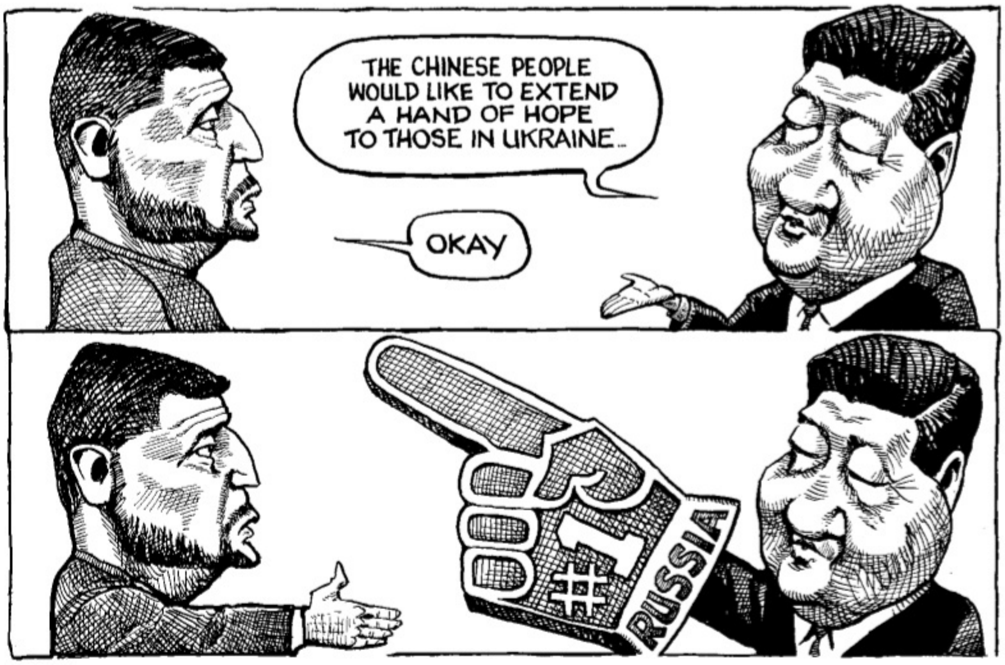
Bon voyage

A **strong dollar** boosted online searches by Americans for flights to Europe, despite sky-high air fares, inflation and an uncertain economic outlook. Kayak, a travel search engine, said searches for travel to Europe this summer are up by more than three-quarters from last year.

Evergrande, a troubled Chinese property developer with more than $300bn worth of liabilities, unveiled plans for its delayed restructuring of around $19bn in debt held by overseas investors. Creditors will either be able to swap debt into new notes with maturities of up to 12 years, or convert them into new notes with a maturity between five and nine years and equity-linked instruments. The restructuring is expected to take effect from October.

The Competition and Markets Authority, Britain's antitrust watchdog, warned that the $69bn takeover of **VMware**, a cloud software company, by **Broadcom**, an American chipmaker, could drive up the cost of computer parts and software. The deal, which is the biggest in Broadcom's history, is also being scrutinised by competition authorities in America and Europe.

Nike, a sportswear brand, reported $12.4bn in revenues for the quarter ending February 28th. This was up by 14% from a year ago and exceeded the $11.5bn expected by Wall Street analysts. That was despite weak sales in China, where covid-19 restrictions weighed on earnings.


THE CHINESE PEOPLE WOULD LIKE TO EXTEND A HAND OF HOPE TO THOSE IN UKRAINE...
OKAY
#1 RUSSIA

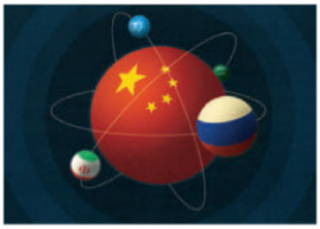
The world according to Xi

Even if China’s transactional diplomacy brings some gains, it contains real perils

A LESSER MAN than Xi Jinping might have found it uncomfortable. Meeting Vladimir Putin in Moscow this week, China’s leader spoke of “peaceful co-existence and win-win co-operation”, while supping with somebody facing an international arrest warrant for war crimes. But Mr Xi is untroubled by trivial inconsistencies. He believes in the inexorable decline of the American-led world order, with its professed concern for rules and human rights. He aims to twist it into a more transactional system of deals between great powers. Do not underestimate the perils of this vision—or its appeal around the world.

On Ukraine China has played an awkward hand ruthlessly and well (see International section). Its goals are subtle: to ensure Russia is subordinate but not so weak that Mr Putin’s regime implodes; to burnish its own credentials as a peacemaker in the eyes of the emerging world; and, with an eye on Taiwan, to undermine the perceived legitimacy of Western sanctions and military support as a tool of foreign policy. Mr Xi has cynically proposed a “peace plan” for Ukraine that would reward Russian aggression and which he knows Ukraine will not accept. It calls for “respecting the sovereignty of all countries”, but neglects to mention that Russia occupies more than a sixth of its neighbour.

This is just one example of China’s new approach to foreign policy, as the country emerges from zero-covid isolation to face a more unified West. On March 10th China brokered a detente between two bitter rivals, Iran and Saudi Arabia—a first intervention in the Middle East, which highlighted the West’s reduced clout there 20 years after the American-led invasion of Iraq (see Briefing). On March 15th Mr Xi unveiled the “Global Civilisation Initiative”, which argues that countries should “refrain from imposing their own values or models on others and from stoking ideological confrontation.”



China’s approach is not improvised, but systematic and ideological. Deng Xiaoping urged China to “hide your capacities, bide your time”. But Mr Xi wants to reshape the post-1945 world order. China’s new slogans seek to borrow and subvert the normative language of the 20th century so that “multilateralism” becomes code for a world that ditches universal values and is run by balancing great-power interests. The “Global Security Initiative” is about opposing efforts to contain China’s military threat; the “Global Development Initiative” promotes China’s economic-growth model, which deals with autocratic states without imposing conditions. “Global Civilisation” argues that Western advocacy of universal human rights, in Xinjiang and elsewhere, is a new kind of colonialism (see China section).

This transactional worldview has more support outside the West than you may think. Later this month in Beijing Mr Xi will meet Brazil’s president, Luiz Inácio Lula da Silva, an advocate of a multipolar world, who wants China to help negotiate peace in Ukraine. To many, the invasion of Iraq in 2003 exposed the West’s double standards on international law and human rights (see Lexington), a point China’s state media are busy hammering home. After the Trump years, President Joe Biden has re-engaged with the world but the pivot to Asia involves downsizing elsewhere, including in the Middle East and Afghanistan.

The West has shown resolve over Ukraine, but many countries are ambivalent about the war and wonder how it will end. At least 100 countries, accounting for 40% of global GDP, are not fully enforcing sanctions. American staying power is doubted. Neither Donald Trump nor Ron DeSantis, his Republican rival, sees Ukraine as a core American interest. All this creates space for new actors, from Turkey to the UAE, and above all, China. Its message—that real democracy entails economic development, but does not depend on political liberty—greatly appeals to the elites of non-democratic countries.

It is important to assess what this mercenary multipolarity can achieve. Iran and Saudi Arabia have been fierce enemies ever since the Iranian revolution in 1979 (see Middle East & Africa section). China is the biggest export market for both, so it has clout and an incentive to forestall war in the Gulf, which is also its largest source of oil. The agreement it has helped broker may de-escalate a proxy war in Yemen that has killed perhaps 300,000 people. Or take climate change. Chinese mercantilist support for its battery industry is a catalyst for a wave of cross-border investment that will help lower carbon emissions.

Yet the real point of Mr Xi’s foreign policy is to make the world safer for the Chinese Communist Party. Over time, its flaws will be hard to hide. A mesh of expedient bilateral relationships creates contradictions. China has backed Iran but chosen to ignore its ongoing nuclear escalation, which threatens China’s other clients in the region. In Ukraine any durable peace requires the consent of Ukrainians. It should also involve accountability for war crimes and guarantees against another attack. China objects to all three: it does not believe in democracy, human rights or constraining great powers—whether in Ukraine or Taiwan. Countries that face a direct security threat from China, such as India and Japan, will grow even warier (see Asia section). Indeed, wherever a country faces a powerful, aggressive neighbour, the principle that might is right means that it will have more to fear.

Because China almost always backs ruling elites, however inept or cruel, its approach may eventually outrage ordinary people around the world. Until that moment, open societies will face a struggle over competing visions. One task is to stop Ukraine being pushed into a bogus peace deal, and for Western countries to deepen their defensive alliances, including NATO. The long-run goal is to rebut the charge that global rules serve only Western interests and to expose the poverty of the worldview that China—and Russia—are promoting.

America’s great insight in 1945 was that it could make itself more secure by binding itself to lasting alliances and common rules. That idealistic vision has been tarnished by decades of contact with reality, including in Iraq. But the Moscow summit reveals a worse alternative: a superpower that seeks influence without winning affection, power without trust and a global vision without universal human rights. Those who believe this will make the world a better place should think again. ■

Turmoil in the banks

The great balancing act

Central banks face an excruciating trade-off between financial instability and high inflation

THE JOB OF central bankers is to keep banks stable and inflation low. Today they face an enormous battle on both fronts. The inflation monster is still untamed, and the financial system looks precarious.

Stubbornly high inflation led the Federal Reserve to increase interest rates by a quarter of a percentage point on March 22nd, less than a week after the European Central Bank raised rates, too. The Fed acted days after three midsized American banks had collapsed and Credit Suisse, a grand old Swiss bank with more than SFr500bn ($545bn) in assets, suffered a wounding run that ended in a shotgun wedding with its Swiss rival, UBS. Bankers led by Jamie Dimon, the boss of JPMorgan Chase, are trying to shore up First Republic, the next teetering domino.

The trouble is that central bankers' two goals look increasingly contradictory. All but the biggest American banks are suffering from the consequences of higher interest rates. Dearer money has reduced the value of their securities portfolios and has made it likelier that depositors will flee to big banks, or to money-market funds (see Free exchange). Cutting interest rates would help the banks; so does backstopping the financial system. But either option would further stimulate the economy and make inflation worse.

It was not meant to be like this. New rules introduced after the financial crisis of 2007-09 were intended to stop bank failures from threatening the economy and the financial system. That, in turn, was supposed to leave monetary policy free to focus on growth and inflation. But the plan has not worked, obliging central banks to perform an excruciating balancing act.

Consider the humbling of Credit Suisse. Regulators are supposed to be able to "resolve" a failing bank in an orderly fashion over a weekend by following a plan to wipe out shareholders and write down convertible bonds (or convert them to equity). But Credit Suisse's demise has sowed uncertainty and confusion. Instead of winding down the bank, Swiss officials pressed UBS to buy it, providing generous taxpayer-backed loans and guarantees to make the deal work and even passing a law to make the terms watertight.

Although regulators wrote off the bank's convertible bonds, shareholders still received $3.2bn, upending the expected preference of bondholders over stockholders. One reading of the bond contracts' small print is that this inversion was allowed. Even though regulators in Britain and the EU were quick to insist they would respect the usual order of creditors, the Swiss departure from the norm has inevitably shaken investors' faith, creating doubt about what might happen with the next bank failure.

America's improvised rescue of all the depositors of Silicon Valley Bank and Signature Bank could also have a corrosive effect. Deposits above a cap of $250,000 per customer are not formally insured by the federal government. But nobody is sure which larger depositors would be bailed out if a bank failed. Jerome Powell, the chairman of the Fed, said on March 22nd that depositors "should assume" they are safe. The same day Janet Yellen, the treasury secretary, said expanding insurance to all depositors is not under consideration. Meanwhile, the Fed has lent $165bn through its newly generous lending schemes, which shield banks from the risks of holding long-dated securities.

As we published this, it looked as if First Republic would survive without more state intervention. Nonetheless, the combination of banks' travails and regulatory uncertainty could yet harm the economy.

One source of pain could be America's small and midsized banks. Those with less than $250bn in assets account for about half of all banking assets and 80% of loans for commercial property, a sector that has been vulnerable since the pandemic (see Finance & economics section). If smaller banks continue to lose deposits or if they need to raise capital because investors or regulators doubt their safety, then they could limit the loans they make, slowing economic growth and inflation.

Another cause for concern is credit markets. The extra yields paid by the riskiest firms to borrow have risen and in some markets credit seems to be drying up. Worries about tighter financial conditions have led markets to pare back their bets on high inflation even as they have priced in interest-rate cuts.

As they weigh this precarious economic outlook, central banks must also be cautious about the signals they send. Because they regulate banks, they have special insight into the health of the financial sector. One reason the Fed was right to raise rates this week was that a sharp U-turn would have caused panic about what the central bank knew that markets didn't.

Where to go from here? The essential aim is to fix the regulatory regime, so that central banks remain free to fight inflation. A big task is to revisit the measures that ensure one bank failure does not spill over into the next. If need be, policymakers must be able to recapitalise a failing bank by writing down bonds or converting them to equity. And it should be clear that shares will first be written off entirely.

In America the appeal of insuring all depositors is that they then have no incentive to flee from smaller banks. But the real problem is lax capital rules for banks with less than $700bn in assets and inadequate planning for the failures of banks with under $250bn. Offering universal deposit insurance without fixing those problems would encourage excessive risk-taking. Banks would remain fragile yet be freed from any scrutiny by large depositors.

Don't look down

Until the banks are fixed, monetary policymakers have no choice but to take into account the dangers they pose to the economy. The Fed must scrutinise the lending behaviour of affected banks and build it into its economic forecasts, and also keep a close eye on credit markets. It would be a mistake to stop fighting inflation to preserve banks. But inflation also needs to be brought down in a controlled manner, and not as a result of the chaos of a financial crisis and the economic agonies it would bring. Central bankers already faced a narrow path to success. The ravines on either side of it have become deeper. ■

France

A half-victory

Emmanuel Macron's sensible pension reform came at a heavy political cost

Any french president who asks his fellow citizens to retire later does so at his peril. When Jacques Chirac tried in 1995, crippling strikes made him shelve the project; 18 months later voters sacked his government. Piles of rubbish were left to rot on the streets, as they are today on the boulevards of Paris. Bin collectors have joined strikes against the decision by the current president, Emmanuel Macron, to raise the minimum pension age from 62 to 64. So it was with some relief that on March 20th his minority government narrowly survived two no-confidence votes, opening the way for his reform to enter the statute books.

The French president is not yet in the clear. The law must be approved by the constitutional council. And the French still know better than most how to deploy the force of the mob when all else fails. In 2006 countrywide protests forced Dominique de Villepin, then prime minister, to revoke new labour rules for young people even after they had been written into law. Now, once again, opposition leaders are agitating in the streets to overturn a reform that they could not get rid of in parliament. Do not rule out the risk of an uprising, like the one France witnessed during the *gilets jaunes* movement.

Mr Macron seems determined not to be pushed around by the protesters—and rightly so. His pension reform is imperfect, but essential. France spends 14% of its GDP on public pensions, nearly double the OECD average. This burden is rising as the population ages. France is home to 17m pensioners, 4m more than in 2004. Raising the retirement age is the soundest way to close the financing gap, as other European countries have proved.

Yet the president's narrow escape has come at a high political cost. After failing to persuade the public, trade unions or the opposition of the need for his reform, Mr Macron judged that he could not risk a normal parliamentary vote. Instead he resorted to a constitutional provision that put his government's survival on the line. This is perfectly legal: it has been used 100 times since Charles de Gaulle introduced it, including to build France's nuclear deterrent. But it is increasingly seen as a way to impose a decision against the will of the people. For Mr Macron, whose haughty top-down governing style irks many, its use reinforces the impression that he will not listen.

This is dangerous, because Mr Macron's narrow escape should not be the end of his ambitions to reform France. Much is still to be done, from the pursuit of net-zero emissions and full employment, to better schooling in tough and remote areas. The 45-year-old president is still in the first year of his second term, fizzing with energy and ideas. But minds are already wandering to 2027, and the dark threat that he may have to hand over the keys to the Elysée Palace to someone from the extremes, such as Marine Le Pen. Unless Mr Macron can improve the lives of his fellow citizens, he will not contain the *morosité* that turbocharges populism.

Even then, a record of reform may not be enough. Democratic leadership requires the constant and careful forging of consent. Now, more than ever, Mr Macron needs to correct his solitary manner, and show the French that he disrespects neither parliament nor the people.

With war raging in Ukraine, Europe benefits from a strong, stable France, the EU's second-biggest economy and only military heavyweight. For France, imposing the pension reform was always going to be the second-best outcome. For Mr Macron, it is a reminder that in politics it is not always enough to be right.

The lesson goes wider than this. Those in France who want their next president to come from the democratic centre, not the far right, cannot afford to stay silent. Mr Macron alone is not to blame for this mess. A chunk of legislators from the centre-right Republicans, many of whom support reform, withheld their backing. The silence of those in politics, business and beyond, who know well that France needed change, was short-sighted and craven. They could end up paying a steep price. ■

Europe and America

Play to your strengths

Why the EU should resist the temptation to subsidise

This year the European Union will celebrate a momentous achievement: its single market turns 30. The unfettered movement of goods, people, services and money within the bloc, together with an openness to foreign trade and investment, has served the EU remarkably well. But, among the leaders of member countries who had gathered in Brussels to talk about the single market as *The Economist* was published, the mood was more anxious than jubilant. There is a nagging fear that the EU's economic model may no longer be working.

Climate change calls for a bold and swift transformation of the economy. Vladimir Putin has weaponised trade for geopolitical gain, fuelling fears that Xi Jinping, too, may one day do the same. America, once the guardian of a rules-based order, has become brazenly protectionist. Its lavish subsidies, some with "Made in [North] America" strings attached, appear to be luring European carmakers such as Volkswagen into setting up electric-vehicle battery factories on the western side of the Atlantic.

Faced with all this, Europe's leaders are tempted to respond with handouts and protectionism of their own (see Finance & economics section). Indeed, the agenda for the meeting in Brussels features a range of proposals from the European Commission, including plans to support green tech and to secure supply

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chains. Yet before they loosen the purse-strings, leaders should remember the strengths of the EU's market-based approach.

Some of the commission's ideas, such as spurring governments to speed up permits and to invest in skills, are sensible. Others represent a worrying shift. In a throwback to 1970s-style industrial policy, the commission now favours domestic production targets for important things such as heat pumps and the mining and refining of raw materials like lithium.

For decades the commission fiercely restricted the use of "state aid" by members to tilt the playing-field towards domestic firms. Now it has weakened those rules to allow members to subsidise greener firms more freely and, within limits, to match other countries' subsidies to entice investment to Europe.

A carbon price beats handouts

Such policies risk squandering public money to little effect. For a start, the EU's market-based approach to climate change, which is based on a carbon price, will make the transition a lot cheaper than in America, which is relying on handouts instead. One rule of thumb suggests that using subsidies alone could make the green transition three times as costly as a pure carbon-price approach.

Europe worries that America's largesse may cause domestic jobs and industries to flee across the Atlantic. True, the handouts may encourage some firms to bring forward some investments in America. But that is a boon to Europe, not a threat. Europe has a large and well-rooted green industry; battery firms and carmakers would be foolish to abandon as big a market as the EU. If America turbocharges the green transition, European firms and customers will benefit from cheaper technology and a greater choice of suppliers.

A subsidy race, then, would be horribly wasteful. But there is still a role for wise public spending. Governments can help ensure that green tech has better access to finance, and they can bear some of the risks of investing in renewables. Public infrastructure, including electricity grids, should be upgraded, and poor households given subsidies to make their homes more eco-friendly. Thanks in part to the EU's post-pandemic recovery fund, much of the money to do all this is already in place.

Responding to the economic and political threats that China poses is a lot harder. In contrast with America, the EU's members lack a common understanding of what the goal should be. Germany's coalition government is divided on the matter. For the time being, diversifying supplies of vital goods and raw materials, as the commission is proposing, is a good start. But rather than setting domestic targets, the best bet is to keep looking outward, and to develop deeper economic ties with other countries.

Squeezed as it is between an assertive China and a protectionist America, the EU is right to rethink its economic strategy. But instead of copying the protectionism and meddling of other governments, it should draw on its strengths: a free internal market, limits on state subsidies and a vigorous trade policy. ■

Not like that, minister

Reforming the British state

The machinery, structure and output of government all need fixing

A DOSE OF competence goes a long way in British politics. Last week the budget provided a welcome contrast to its chaotic predecessor. This week Boris Johnson's blustering testimony to Parliament's privileges committee reminded Britons just what they have not been missing. Ministers who know what they are doing and care about detail can make a big difference. But that should not obscure a set of underlying problems with how the British state functions. Those problems are at the core of a series of articles that *The Economist* intends to publish this year.

The first problem concerns the machinery of government. Some of this is literally machinery: nearly half of all technology spending across government before the pandemic was dedicated to keeping outdated legacy systems running. But it is also wonk-speak for the civil service, the half-a-million-strong engine of Britain's government (see Britain section). From policy mavens to prison officers, civil servants advise ministers and turn government plans into action. The service has a proud reputation and lots of able people. Unfortunately, it also has a long list of weaknesses.

The cult of the gifted amateur, whereby the Sir Humphreys of the future build their careers by jumping from problem to problem rather than cultivating expertise, is an old complaint. The problem of internal churn, which is higher in Britain's public administration than in comparable countries, has worsened. The ebb and flow of civil-service numbers in the past decade, after years of austerity and the demands of Brexit and covid-19, mean that less experienced officials are in more senior posts. Worsening relations with ministers have eroded the tradition that trusted officials provide candid advice to their elected masters.

Some changes are already in train—to pay, so that specialist expertise is rewarded, and to evaluation (only nine of the government's 108 most significant projects in 2019 were robustly assessed). However, more radical reforms are needed. The heart of Britain's system of government is too much of a black box. Civil servants have only limited mechanisms to signal concern about ministerial proposals, and they are required to represent ministers in their public appearances. One idea is to publish officials' advice to ministers. Some worry that this will make the government too risk-averse, but the evidence from New Zealand is that it does not inhibit candid discussion. Although greater public scrutiny would be a seismic change to the way the British civil service operates, it is a necessary one.

That is because of the scale and urgency of two other problems. A huge concern is British productivity, which has grown at less than half its pre-financial-crisis rate since 2010. That is not just the government's headache to cure; but it is one that the state exacerbates. Fiscal power is too concentrated on Whitehall. Only 6% of tax revenue in Britain is collected by local government, a tiny share compared with other countries. A short-termist approach also hampers growth-enhancing initiatives, as ▸▸

shown by the recent decision to delay yet again the completion of HS2, a very-low-speed rail project. The planning system makes quagmires look slick. The Centre for Cities, a think-tank, pins stagnant productivity in London on difficulties in building houses and offices, among other things.

The third problem is the condition of public services. The state is getting bigger. The Office for Budget Responsibility, a watchdog, reckons that the tax burden will reach a post-war high of 37.7% of GDP later this decade. But with some exceptions, such as education, it is not producing better results. The latest data paint a pretty bleak picture: life expectancy stalling; falling trust in the police; staffing difficulties in children's social care.

Slashing spending isn't a plausible option. The public appetite for cuts is low; large parts of the state need more capital investment; and the lesson of austerity is that salami-slicing does not pay. But spending ever more money on the same services is not an answer either (supposing pots of money were available). The productivity of the NHS has declined since the pandemic, even as more cash has gone in. Instead radical rethinking is required: to shift the NHS to a model less focused on hospital care; to reduce one of the highest incarceration rates in western Europe; to change the tax system so as to encourage enterprise.

Getting over the Humphrey

The good news is that these problems are more manageable than they may seem. Britain is a place where a powerful national government can click its fingers and change everything. That is both bad, because too many decisions flow through Whitehall, and good, because it is possible to be more radical than in Germany, say, or America. Britain has overhauled its state before, in the aftermath of the second world war and to escape the stagnation of the 1970s. It is time to do so again. ■

Video games

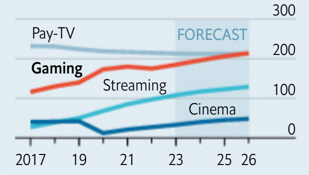
Storm forming

As gaming grows, it is eating the media

Warner Bros released a new Harry Potter title last month and took $850m in two weeks. That made it the second-most-successful Potter launch in the film studio's history. But "Hogwarts Legacy", the title in question, was no movie: it was a video game.

Warner's hit is an example of how gaming is besting older media, both as a business and as a way for people to entertain themselves. Consumers are forecast to spend $185bn on games this year, five times what they will spend at the cinema and 70% more than they will allocate to streamers like Netflix. Once a children's hobby, gaming has grown up. Console players in their 30s and 40s now outnumber those in their teens and 20s.

Yet as gaming matures, it is not just rivalling other media. Rather like a ravenous Pac-Man, it is gobbling them up (see Special report). While such intellectual property as Harry Potter may be finding success in game form, game franchises have themselves become the most in-demand kind of IP in other media. Apple's "Tetris" movie, due out later this month, is the latest (and perhaps oddest) instance of Hollywood mining games for ideas as audiences tire of comic-book heroes. Amateur creators are doing the same. After music, gaming clips are the biggest content category on YouTube.


Global consumer spending, $bn

At the same time, audiences are increasingly consuming old media through games. The latest season of "The Walking Dead", a long-running television drama, took the form of an interactive game on Facebook. Musicians such as Ariana Grande perform concerts in "Fortnite". The fitness video is giving way to the fitness game. Even social networking is partly migrating to the gaming arena. Platforms like Roblox provide children with a place to play—but also to hang out, chat and shop. In so far as anything resembling a metaverse yet exists, it exists in games.

Expect more growth. Smartphones put a powerful console in people's pockets and unlocked hours of playtime on the commute and at the back of the lecture hall. The next boost may come from smart TVs and streaming, which bring high-fidelity games to living rooms without the need for dedicated hardware.

New business models are another source of growth. Gaming's latest boom was propelled by free-to-play games, which suck users in before monetising them with ads and in-game purchases. A new phase of expansion is coming from game-library subscriptions, which already show signs of increasing consumption and accelerating discovery, much as the cable bundle did in television. These new distribution mechanisms and business models promise more choice for consumers—which is why regulators should allow Microsoft's $69bn acquisition of Activision Blizzard, a big gamemaker whose titles Microsoft would make available for streaming and subscription.

All this holds lessons for other industries—chiefly that, if you are in media, you need to be in gaming. Apple and Netflix are scrambling to complement their streaming offerings with games. Others are already there. In August Sony Pictures will release "Gran Turismo", a film based on a Sony game which features songs by artists from Sony Music. Media firms that ignore gaming risk being like those that decided in the 1950s to sit out the TV craze.

Governments should also pay attention. Their main concern so far has been whether games rot young minds (almost certainly not, especially if playing diverts them from social media). As gaming grows, bigger questions loom. Film and television, the engines of popular culture in the 20th century, are dominated by Hollywood. The contest in new media is more open. Western governments are waking up to the implications of the world's hottest social-media app, TikTok, being Chinese-owned. Next they might consider what it means that China also made two of last year's three highest-grossing mobile games.

When video games were just electronic toys, this might not have mattered. But as games expand and spill into other formats, it is becoming clear that whoever dominates gaming is going to wield clout in every form of communication. In every sense, the future of the media is in play. ■

Letters

Poland's claim for reparations

It is not true that Poland's reparations claim from Germany for the second world war is "poorly thought-through" ("Tilting east", March 4th). Nor is the demand for €1.3trn ($1.4trn) an "absurd" amount. Your readers may think that Poland wants something from Germany that is not due. Experts at the Jan Karski Institute of War Losses have spent seven years working on the methodology used to calculate the losses which remain uncontested. The government published its report in September 2022. We estimate our wartime losses at $1.53trn.

To give you some facts, Poland's population decreased by 11.2m. Over 5m Polish citizens were killed because of German aggression. More than 2.1m were taken as slave labour. Over 590,000 Polish citizens were left disabled or suffering from long-term serious illnesses due to war and because of pseudo-medical experiments. Demographic losses can be estimated at $1.2trn. Material losses amount to $196.4bn.

Money stolen from Polish banks and losses in insurance are in the billions, as are estimates of the loss from trying to wipe out Polish cultural and intellectual heritage. Losses to the Polish Treasury from the operation of the Emissionsbank in Polen come to $121.4bn. Public opinion in Poland supports reparations. A cross-party resolution to seek compensation for the damage sailed through the lower house of parliament.

The truth is that Germany has never paid Poland reparations. The Potsdam Agreement in 1945 defined Germany's obligations. Poland was the only country among the occupied states to receive reparations through Soviet channels, while the Western Allies mediated reparations for the other states engaged in the war against the Third Reich. The West got the Marshall Plan and reparations; Poland got Soviet occupation.

The German government hides behind the doctrine of jurisdictional immunity of the state, effectively depriving Polish and other war victims of any legal path to seek compensation. The Germans started the war and no peace treaty has been signed between Poland and Germany to resolve the issue of the compensation due to Poland. The War Report has been peer reviewed, remains unchallenged, and the amount of reparations claimed is conservative.

ARKADIUSZ MULARCZYK
Secretary of state for
European policy
Warsaw

What would Mandela say?

Reading your article about South Africa cosying up to Russia and China shows, once again, how our African National Congress government has absolutely no moral compass ("Irrational interest", February 25th). It is so sad to think that this country was a beacon of liberal values not too long ago, but now it implicitly condones a heinous war and lambasts and alienates countries that actually do good in this world.

The ANC's position on foreign policy is not representative of public opinion. Most South Africans support Ukraine wholeheartedly and recognise that we are allies of the Western democracies. As Dante said, the darkest places in hell are reserved for those who maintain their neutrality in times of moral crisis. One can only hope someone in the ANC realises this.

EWAN HICKLING
Pretoria

Not on the committee

Lexington suggested that the Republicans "chose to object" to the January 6th committee by not nominating members to it (March 11th). However, Kevin McCarthy, the party's minority leader in 2021, did nominate five Republicans to the committee, but Nancy Pelosi the then Speaker, refused to seat two of them, including Jim Jordan, the subject of Lexington's column. Mr McCarthy withdrew all five nominees in response. That was unfortunate. From an entertainment perspective, Mr Jordan would have spiced things up for those of us who love the spectacle of American politics as reality TV.

MARK HABELT
Scottsdale, Arizona

Coming up Milhouse

As a fan who still relishes "The Simpsons", or rather the episodes during the 1990s when the show was still funny, I was amused by Bagehot's comparison of Milhouse to the Tories (March 4th). Milhouse owes his name to Richard Nixon (though the former president spelt his middle name without an "e"). Nixon was a frequent target on "The Simpsons", most amusingly in a Halloween episode, when he was a member of the Jury of the Damned, alongside Lizzie Borden, Benedict Arnold, John Dillinger and the starting line-up of the 1976 Philadelphia Flyers.

DAVID WILSON
Denver

Thank god it's Thursday

The latest pilot study on the viability of a four-day work-week reinforces the results of earlier experiments (The world this week, February 25th). The life-work malaise predates covid, by at least a decade. Researchers from Harvard and Northeastern universities released a study called "Pulse of the Nation" that tracked the mood swings of people in America through 300m tweets from 2006 to 2009. Unsurprisingly people are significantly happier on Saturdays and Sundays, and start to become happier on Fridays (TGIF is for real). People are least happy during the weekday hours of 10am and 4pm. A four-day work week would bring forward this jollier mood to Thursday, benefiting both employers and employees.

IRA SOHN
Emeritus professor of
economics and finance at
Montclair State University
Upper Montclair, New Jersey

Eroding the skills base

Regarding the attitude of British firms towards training ("No skills required", February 25th), my experience has been that when times get tough the three things that face cutbacks before anything else are treats, travel and training. No more morale-building get-togethers, no more travel to meet colleagues face to face, most training cancelled.

In spite of warm words about people being our greatest asset, stopping training is a very easy option to curtail costs. When that happens again and again, training ceases to be seen by business leaders as an absolutely essential component of staying competitive. Instead it becomes regarded as an optional extra to be run when times are good.

ERIC WOODCOCK
Southport, Merseyside

Join the club

I read every issue of *The Economist* and have noted how often you refer to the OECD as a "club of mostly rich countries". I dug into the data over the past two decades and have found that the OECD is mentioned in your pages about 100 times a year. However, the description of "a club of mostly rich countries" exploded in use from two or three mentions a year in the early 2000s to a whopping 68 times in 2022. The leader, "Too fast to land" (March 11th) puts us on trend for the highest year ever at 71.

If what I've learned from *The Economist* is true, this would be a classic case of correlation not causation, but perhaps we can all agree that readers know what the OECD is. Or have I uncovered a secret society?

BRIAN OLNEY
Redding, Connecticut

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Intransigence mixed with emollience

DUBAI

The clerical regime wants a detente with its neighbours, but not with America

THOSE WHO see Iran's clerical regime as a fount of danger and discord have had no shortage of evidence in recent months. It has supplied Russia with hundreds of kamikaze drones to bomb civilian targets in Ukraine, and is thought to be building a factory in Russia to provide yet more. In early March the International Atomic Energy Agency (IAEA) revealed that it had found traces of uranium at an Iranian facility that were too pure for any civilian use and almost refined enough to be made into a nuclear bomb. The government's violent repression of widespread public protests is now in its sixth month. And this week it conducted naval exercises with China and Russia off its southern coast.

Yet recent weeks have also seen the biggest easing of tensions in years between Iran and its geopolitical rivals in the Middle East. On March 10th the government signed a deal, brokered by China, to restore diplomatic relations with Saudi Arabia after a seven-year lapse. The Saudi government has invited Ebrahim Raisi, Iran's president, to visit the kingdom—something only one previous Iranian president has done. And Iran's closest ally in the region, Syria, is also patching up relations with its neighbours. Bashar al-Assad, Syria's president, visited the United Arab Emirates (UAE) this week.

This peculiar mix of emollience and belligerence raises several questions. Is Iran turning over a new leaf? What accounts for its apparent inconsistency? And how will Iran's confusing conduct affect the region and the world?

Just over two years ago, when Joe Biden became America's president, he had high hopes of easing America's long-running feud with Iran. His predecessor, Donald Trump, had withdrawn from a deal struck in 2015 that put limits on Iran's nuclear programme. Instead, Mr Trump reimposed sanctions. Mr Biden calculated that Iran, its economy reeling, would jump at the chance to escape some of the sanctions by restoring the nuclear pact.

Mr Biden's hopes have come to nothing. Round upon round of painstaking talks in Vienna have yielded no breakthroughs. Ali Khamenei, Iran's supreme leader, appears to have lost patience. The IAEA's discovery, meanwhile, suggests that Iran is accelerating its nuclear work.

But Iran's detente with Saudi Arabia suggests that it is open to at least some overtures from its adversaries. Its relations with the kingdom in recent years had been worse, if anything, than with the United States. Iran and Saudi Arabia took opposing sides in the long civil wars in Yemen and Syria, among other disputes. Iran inflicted a series of humiliating reversals on the Saudis via the Houthis, the faction Iran backs in the war in Yemen. Last year, for instance, the Houthis fired missiles and drones at an oil depot in Jeddah, Saudi Arabia's second city, days before a Formula 1 race there. Saudi Arabia had been lobbying Mr Biden to make sure that any deal America struck with Iran was not too lenient.

Bridging the gulf

Now, all of a sudden, in addition to restoring diplomatic ties with Saudi Arabia, Iran has agreed to curtail shipments of arms to the Houthis, according to officials in both America and Saudi Arabia. On the Saudi side, Mohammed al-Jadaan, the finance minister, has held out the prospect of Saudi investment in Iran growing "very quickly" if the agreement holds.

That may be empty talk, but the thaw in relations does seem to have an economic logic on both sides. Saudi Arabia needs stability to attract the investment it is counting on to help diversify the economy away from oil and petrochemicals. Iran's economy, meanwhile, is on its last legs. In Feb-

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ruary the rial dropped to an all-time low of around 580,000 to the dollar, leaving it 55% weaker than a year before and 94% down over a decade (see chart). Partly owing to the weakness of the rial, inflation has hovered at about 50% for the past year.

The miserable state of the economy, in turn, has exacerbated the protests that erupted in September after Mahsa Amini, a young Iranian woman, died in the custody of the "morality police" in Tehran, the capital. Though the crowds have ebbed, unrest still smoulders in places like the Kurdish north-west. Women across the country openly defy the legal requirement to wear a *hijab,* a focal point of popular anger (see Middle East & Africa section).

After the deal with Saudi Arabia was signed, the rial appreciated by about 14% against the dollar (though it later lost some of those gains). "Any kind of deal that could bring any kind of stability to their domestic politics, and therefore to their domestic economics, is welcome," says Mahdi Ghodsi, an Iranian economist at the Vienna Institute for International Economic Studies.

But the same logic does not seem to apply to the Joint Comprehensive Plan of Action (JCPOA), the nuclear pact that America wants to revive. The JCPOA barred Iran from amassing any more than 202kg of uranium of a maximum 3.67% purity. In return, the West and the UN eased sanctions on Iran's economy. A similar offer has been back on the table since Mr Trump left office. But whereas the detente with Saudi Arabia involves marginal concessions for marginal benefits, scrapping the nuclear programme—in a deal with the hated Americans—is apparently too abject a surrender for Iran's leaders to accept.

Since the election of Mr Raisi in 2021 (after all moderate candidates had been barred from standing), hawks have controlled all branches of Iran's government. Mr Khamenei, the ultimate arbiter, was always reluctant to negotiate with the West. Mr Trump's repudiation of the JCPOA left him feeling vindicated. "He says, 'I told you we should not trust the Americans,'" says Raz Zimmt of the Institute for National Security Studies, an Israeli think-tank. "'We were ready to do that for the sake of sanctions relief, but at the end of the day the Americans violated the deal, so you have to convince me why I should make the same mistake again.'"

What is more, Iran's leaders believe they have built a "resistance economy" capable of enduring prolonged sanctions. Never mind the swooning rial and sky-high inflation: the regime thinks China and Russia will keep it afloat. It signed a 25-year "strategic partnership" with China in 2021 and has boosted ties with Russia during war in Ukraine. "They want to signal to the West that 'We have our partners, we don't need you,'" says Mr Ghodsi.

But relations with China are lopsided: Iran sends lots of cut-price oil east, but China does not send much the other way. Giddy Iranian officials talked about how the partnership agreement might spur $400bn in Chinese investment. Last year, however, Chinese firms injected just $185m. Soon after Mr Trump renounced the JCPOA, Iran announced that China National Petroleum Corporation (CNPC) had stepped in to replace Total, a French energy giant, in a $5bn contract to develop the massive South Pars gasfield. But CNPC pulled out a year later. The project remains unfinished.

Russia has overtaken China as Iran's largest investor. The two countries are also working together to bypass Western sanctions, using their own currencies in some bilateral trade, for example, and connecting their banking systems. Trade has grown to at least $2bn a year, up from about $1.5bn before the war in Ukraine (official statistics in both places can be unreliable).

Gulf of expectations

Still, there are limits to how much two countries hobbled by sanctions can offer one another. Talk of boosting trade to $10bn a year, as Mr Raisi promised last year, is probably fanciful given their weak economies (and the fact that both countries tend to export similar products). Investment is unlikely to surge either. And they are becoming competitors in energy markets, where they both seek to offer discounted oil to Asian buyers.

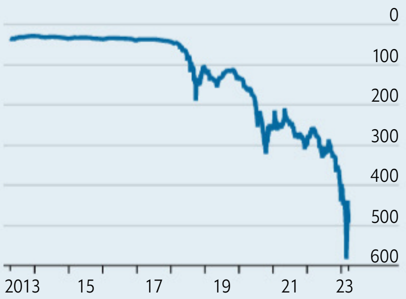
At a recent talk, a pro-regime academic gave a sense of the government's view of its economic straits. Iran, he said, was "selling every drop of oil it produced" and earning more in oil revenue—despite the discounts it must offer because of sanctions—than it did when the JCPOA was intact.

That is all true. But it omits some important context: Iran is selling every drop because production has fallen almost by half since 2017, from 4m barrels a day to 2.5m. It is only earning more revenue because the average price of oil in 2022 was 100% higher than five years earlier. In other words, sanctions have severely reduced Iran's output and so cost the country tens of billions of dollars a year in revenue. Worse, some of Iran's earnings come not as cash but rather through a barter scheme with China, which means the export revenue does not help to shore up the rial.

Rial pain

Iranian rial per $, '000

Inverted scale



Source: bonbast.com

Whatever the economic cost, however, Iran's "breakout" time (how long it needs to make a bomb's-worth of uranium) is growing ever shorter. It has already amassed at least 70kg enriched to 60% purity. The particles the IAEA found had been enriched to 83.7%, just a fraction below the 90% required to make a bomb. Diplomats speculate that Iran has not yet accumulated much uranium of such purity. But it is hard to know anything for sure: Iran has restricted the IAEA's monitoring of its nuclear facilities. Colin Kahl, an American official, thinks Iran could make enough fissile material for a weapon within 12 days.

It is unlikely to do so—for the moment. Although it has mastered enrichment, it lacks the expertise to turn the enriched uranium into a warhead and mount it on a missile. It is making steady progress on those fronts, too, however. Iran has an active programme making ballistic missiles and has unveiled weapons with ever greater ranges in recent years.

That leaves the world with a series of bad options. One is continued diplomacy. But if Iran wanted to return to the JCPOA, it could have done so by now. An alternative might be a lesser agreement, sometimes dubbed a "JCPOA-minus", in which Iran would not accept broader limits on its nuclear programme but would agree not to refine uranium to weapons-grade, and permit strict IAEA monitoring, in return for limited relief from sanctions.

This idea is attractive to some European policymakers. But it would be unpopular in Israel and Saudi Arabia, because it leaves Iran so uncomfortably close to breakout. It would cause an uproar in Washington too: instead of the "longer and stronger" agreement Mr Biden has promised to negotiate, he would be settling for a shorter and weaker one. On top of all that, it is unclear whether Iran is interested.

A second option is a military strike on Iran's nuclear facilities. Binyamin Netanyahu, Israel's prime minister, has threatened one for more than a decade. Mr Biden has also made clear that America could attack if it felt Iran was too close to a bomb.

This would undeniably set back Iran's nuclear work—although how much depends on who does it. Many analysts think the damage from an Israeli strike could be repaired in a matter of months. "It's not the case of 1981 Iraq or the reactor in Syria," says Mr Zimmt, referring to two incipient nuclear programmes that were brought to a halt by Israeli attacks.

An American strike would do more

damage, but even that could be undone—and it would reinforce the rationale for having nuclear weapons in the first place. Iran has pursued a nuclear programme at tremendous cost in order to give the regime a guarantee of security. An attack by one (or both) of its greatest foes would only further convince policymakers that they need a nuclear deterrent.

Many Iranians who oppose the regime also fear an attack would prompt the country to rally behind its rulers. No one likes seeing bombs fall on their homeland, after all. But America's assassination in 2020 of Qassem Suleimani, a senior Iranian general, does not seem to have hugely bolstered support for the regime (although it did bring big crowds onto the street). Nor did a long campaign of suspected Israeli sabotage and assassination, from the killing of Iran's top nuclear scientist in 2020 to a strike on a drone-production facility in January. If anything, some Iranians argue, these incidents exposed the brittleness of a regime shot through with defectors and unable to protect itself.

Then there is the question of retaliation. Iran would probably lash out at either Israel, via its proxies in Lebanon and Syria, or the Gulf states. Some Saudis think their country should just grit its teeth and suffer through such an attack. That view is not widely shared in the kingdom, however, nor in the UAE, which fears an Iranian blitz would do lasting damage to its reputation as an oasis of stability. Some regional officials have sought to dissuade the Israelis from carrying out an attack.

That leaves a third option: the status quo. For all its advances, Iran is probably still a year or two away from being able to make and deliver a nuclear weapon. Even if it quickly produced lots of weapons-grade uranium, it could only turn it into a "dirty bomb", a crude device that would not be much of a deterrent. A functional arsenal remains some way off.

What is more, Iran's regime is odious but not suicidal. If it used a nuclear weapon it would find itself on the receiving end of a much stronger response from America, Israel or other powers. That is little comfort, of course, to Israel or Saudi Arabia. But it suggests another way forward: if Iran's nuclear programme cannot be stopped through diplomacy or force of arms, it must be contained through the logic of deterrence. That does not preclude further efforts to press the regime, via sanctions, and to impede its nuclear work, through acts of sabotage.

None of these is a good option. They underline Mr Trump's recklessness in renouncing even an imperfect arms-control agreement. The stand-off is a source of growing anxiety in the Gulf, which in turn, is one reason Saudi Arabia sought Chinese help in lowering tensions with Iran.

Engulfed by fear

The Saudis have not felt secure in their relationship with America for at least a decade. They saw Barack Obama's support for the Arab spring as misguided and opposed his efforts to negotiate with Iran. Mr Trump was much warmer, yet when Saudi oil facilities were attacked by Iranian-made drones in 2019, he did little. Then came Mr Biden, who promised on the campaign trail to make Saudi Arabia a "pariah". Congress has sought for years to obstruct arms sales to Saudi Arabia.

If your strongest partner seems unreliable, and your greatest foe seems threatening, it is only natural to hedge. The Saudis will look for ways to placate rather than provoke Iran, not unlike a shopkeeper paying protection money to the local mob boss. They will also seek to draw China into playing a bigger diplomatic role. If Iran keeps pushing ahead with its nuclear programme, the Saudis hope that China can be persuaded to use its economic clout to help rein in the regime.

If that gambit fails, however—or if China is unwilling to try—Saudi policymakers do not think China will be a substitute for America: no one expects the People's Liberation Army to ride to the rescue when Gulf security is threatened.

WOMEN
LIFE
FREEDOM

For all their frustrations, the Saudis are not eager to break up with America. An Asian diplomat likens the Gulf states to Singapore, a country that has strong economic ties with China but still looks to America for its security. On March 14th Saudi Arabia announced a $37bn deal with Boeing, an American aircraft manufacturer, to buy as many as 72 of its 787 Dreamliners for a new airline being established by the main Saudi sovereign-wealth fund. Officials say the deal is not purely commercial: by giving a boost to American industry, they hope to boost the kingdom's standing in Washington as well.

Saudi Arabia will also leave open the door to an eventual normalisation of ties with Israel. In the short term, that is hard to imagine. Israel has been paralysed for months by massive protests against a far-right government, and the number of Palestinians killed by Israeli forces in the occupied West Bank is on the rise. Both Israeli and Saudi diplomats say the circumstances for normalisation are not right. But the deal with Iran does not mean the Saudis have abandoned their budding security relationship with Israel, any more than they have given up on America as the most influential external power in the region.

All this fits with a broader spirit of detente in a region exhausted by wars and civil unrest. Mr Assad, Syria's bloodstained dictator, is patching up ties with his neighbours, who have largely given up hope that he might be overthrown. Turkey is trying to repair its relationships with Egypt and the Gulf states, which had been frosty for years because of their differing views on political Islam. Qatar, too, is fixing festering disputes with Egypt and Saudi Arabia.

The new mood suits America just fine. Mr Biden has been preoccupied with war in Europe and competition with China. "His advisers just want to keep the Middle East off the president's desk," says a congressional staffer. Any reduction in tensions is therefore a good thing.

Even China's usurpation of America's role as regional broker is not as alarming as it may at first seem. As an American official points out, "We couldn't have negotiated this deal, because we don't have diplomatic relations with the Iranians."

What is more, as Prince Faisal bin Farhan, Saudi Arabia's foreign minister, put it, the Saudi-Iranian agreement is not a "solution to all outstanding differences". The Iranian nuclear programme still looms large. If Iran is to remain a nuclear-threshold state, countries like Saudi Arabia will continue to feel insecure. America may not have a ready solution, but China is not even looking for one. ■

Donald Trump

Stormy whether

NEW YORK AND WASHINGTON, DC

Cases against the former president are piling up

SOME COUNTRIES are fonder of chucking former leaders into prison than others. South Korea has convicted three prime ministers and two presidents in the past decade. In the span of a single year, French courts handed convictions down to Nicolas Sarkozy, its former president, and François Fillon, his former prime minister. In this regard, America is exceptional—having jailed no ex-president in its entire history. Even Richard Nixon was given a pardon to spare him the indignity of a trial after the Watergate scandal.

But Donald Trump may soon break that precedent, too. Manhattan prosecutors are weighing whether to arrest the former president for covering up hush-money payments in the waning days of the 2016 presidential campaign to Stephanie Clifford (better known by her performing name, Stormy Daniels), a former adult-film actress, who says they had sex once. Such an extraordinary sentence would have felled a lesser politician, who might have permanently slunk out of the public eye. But not Mr Trump.

The past (and would-be future) president called for his supporters to rally to his defence—in ways that echoed his messages ahead of the attack on the Capitol by his supporters on January 6th 2021. "THEY'RE KILLING OUR NATION AS WE SIT BACK & WATCH" he wrote on the social-media platform he started, Truth Social, where "all caps" seems to be the default setting. "PROTEST, TAKE OUR NATION BACK!". Mr Trump's deduction from January 6th seems to be that summoning a mob works well for him. Police set up barricades outside Manhattan's criminal court in anticipation of the indictment. Numerous bomb threats have already been made.

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So begins a years-long spat which will upend American politics. Having received a respite from Trumpian storm and stress, American media are returning to their previous patterns of coverage (see chart on next page). Mr Trump will, in all likelihood, fight to be president while his lawyers try to defuse a criminal trial—rather like Israel's prime minister Binyamin Netanyahu, who is busy defanging his country's supreme court now that he is back in power. The news plays into Mr Trump's fearmongering about the deep state, which he has recommitted to destroying once he is back in the White House in January 2025. Grandees in the Republican Party have rallied to the president's defence, including would-be rivals for the party's presidential nomination in 2024, whose task has just become more complicated.

Prosecuting Mr Trump for the campaign-finance violation relies on a convoluted argument. In 2016 Michael Cohen, the president's personal lawyer (who later went to prison himself), paid $130,000 to Ms Daniels out of his own pocket. Mr Trump allegedly reimbursed Mr Cohen with payments disguised as routine legal expenses. Falsifying business records can be a misdemeanour under New York law. The felony indictment would indicate that prosecutors are going to argue that the minor crime facilitated a more serious one: failing to declare the payment, which was made a few weeks before the election, as a de facto campaign expense.

The payment probably did benefit the

▸▸

campaign and it was indeed undeclared. Mr Cohen, the lawyer, pleaded guilty to breaking campaign-finance law. But legal theory for prosecuting Mr Trump in Manhattan is untested. The campaign-finance rules that he may have broken are federal. The accounting rule is a state one. Linking the two in this way is unusual, and a judge may decide it is unwarranted.

The payment, which occurred six-and-a-half years ago, was scrutinised by federal prosecutors, campaign-finance regulators and one past district attorney for Manhattan—all of whom declined to press charges. But Alvin Bragg, the new progressive district attorney (DA) who has earned the ire even of fellow Democrats like New York's mayor Eric Adams, seems to have decided that the case against Mr Trump is stronger than they did. He is no party hack, though. Last year two lawyers who had been working in Mr Bragg's office resigned, citing his reluctance to bring a case against the former president.

Of the four active criminal investigations into the former president—over the stolen-election claims that preceded the January 6th attack; over his mishandling of classified documents after leaving the White House; and his attempts to encourage election fraud in the state of Georgia—the New York case is the weakest. Meanwhile, the others are grinding their way through the courts.

Fight, flight, indict

In February a special counsel investigating the scheme to overturn the 2020 election subpoenaed Mike Pence, the former vice-president, to compel him to testify before a grand jury. On March 17th a federal judge ruled that one of Mr Trump's lawyers was required to testify before another grand jury. On March 21st ABC News reported that this was because the president may have misled his own lawyers about classified materials kept at his Florida estate of Mar-a-Lago, which the FBI recovered in an unannounced search in August 2022.

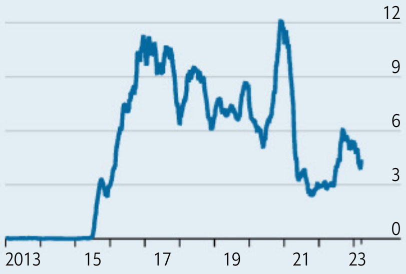
A third grand jury in Fulton County, Georgia, has been examining the president's exhortation, recorded on tape, to state officials to "find 11,780 votes" and help him overturn his narrow election loss in the state. The DA there promised in January that a decision on prosecution was "imminent". Mr Trump, who became the only president to be multiply impeached, may also become the only president to have been multiply indicted.

In the short run, the legal drama in Manhattan will complicate the Republican plot against Mr Trump, which is well under way. Even if top donors and officials detest the former president, they cannot afford to anger his devoted base. Nearly every elected Republican of note and every candidate who is, or is thought to be, seeking the presidency has felt compelled to inveigh against Mr Bragg. Mr Pence, whom Trump supporters wanted to lynch on January 6th, came to his former boss's defence, calling it "another politically charged prosecution". Nikki Haley, a former Trump cabinet member who is running for president, called the prosecution "more about revenge than it is about justice".

Ron DeSantis, the Florida governor who is seen as the president's chief rival, delivered the catechism with a twist. "I don't know what goes into paying hush money to a porn star to secure silence over some type of alleged affair. I just, I can't speak to that," winning some laughter in the crowd and later howls of discontent from Mr Trump's most fervent supporters. That is one sign of the hotting-up of the cold war between the two Floridians. Mr Trump has taken lately to brainstorming nicknames that impugn the governor's integrity ("Ron DeSanctimonious"), physicality ("Meatball Ron") and masculinity ("Tiny D"). Congressional Republicans have already requested testimony and documents from Mr Bragg, to put his trial on trial.

Grabbing them by the attention

United States, number of online articles mentioning Donald Trump published over previous three months, '000



Sources: Memeorandum; *The Economist*

The backlash may temporarily make Mr Trump's standing with the Republican field more solid. But many primary voters, particularly the wealthier ones who make donations, are exhausted with the antics. Several of Mr Trump's primary opponents are former courtiers who are trying diplomatically to offer a trade to his supporters: keep the policies but ditch the immorality plays. The unpredictability of criminal prosecutions may upset this delicate process. If Mr Bragg's case against Mr Trump were to implode at the wrong moment, it could help sweep the former president to the nomination. Other prosecutors are taking their time. "If you go after the king, you better kill the king," says Jennifer Beidel, a former federal prosecutor.

That said, it is hard to imagine all these cases rendering Mr Trump more viable in a general election. All else being equal, a criminal indictment is still unhelpful to a presidential candidate. ■

Beaches, booze and bullets

Breaking news

MIAMI BEACH

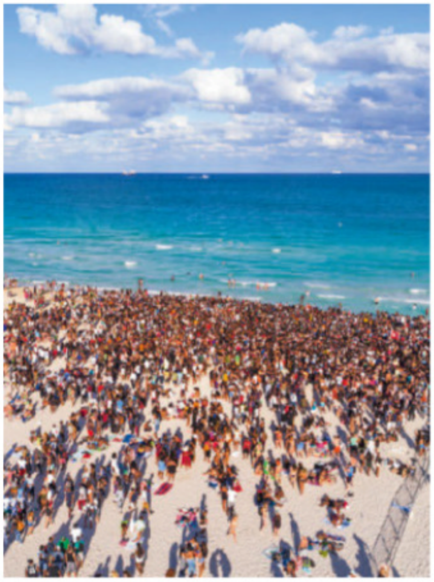
Spring break is an economic nightmare for the hottest host cities

FEW THINGS are as rowdy and reckless as college spring break. Each year swarms of students make a pilgrimage to America's southern beach towns for a booze-fuelled week-long party. According to Airlines for America, a trade group, this year an astonishing 2.6m Americans are expected to fly on each day of March and April—a number boosted, no doubt, by spring-break travel. Many of their destination-cities are dreading their arrival.

Miami Beach never wanted spring-breakers. This year, as partiers flooded the beach, things got raucous. On March 19th, after two consecutive deadly shootings, the mayor imposed an emergency midnight curfew and banned the sale of takeaway alcohol after 6pm in part of the city. The rules could legally last just 72 hours.

Compared with other tourists, college students barely spend money. They pile into cheap (and sometimes dodgy) rented rooms and chug supermarket booze rather than buying cocktails. If they dine out, according to vexed restaurateurs, they hardly tip. After dark they get drunk and drugged.

The wildness attracts undesirable characters: on the South Beach shore a middle-aged man offers a teenager an unlabelled bottle of "champagne". Non-college-goers who come to join in the debauchery commit more serious crimes—feuds become perilous when partiers bring pistols. Nearly half of the 800 arrested at last year's



The rite of spring

spring break were county residents from outside the city; just a quarter were from out of state. This year police arrested 322 people and seized over 70 guns in the first three weeks of March.

More than 400 Miami Beach police officers are working overtime to tame the crowds. Resort-tax revenues do not cover the costs. The mayor, the police and the chamber of commerce are all desperate for the spring-breakers to retreat. But an attempt to ban liquor sales after 2am was crushed when a nightclub sued. Busting illegal Airbnbs is a game of whack-a-mole. And when the city withheld permits for beach parties, entrepreneurial hosts took to the sea, selling tickets for lawless cruises. (The city swiftly put more officers on boats.) "Every single city in Florida that has been a spring-break destination has done everything it could to end its spring break," says Miami Beach's mayor, Dan Gelber. For him, it's not working.

Fort Lauderdale, nicknamed "Fort Liquordale" for booze-smuggling during Prohibition, was the first to host a roaring spring break and the first to shut it down. When a 1960 film brought the hedonistic escapade there to the big screen, Americans became mesmerised. By the mid-1980s spring-breakers mobbed the place. Bad behaviour made residents rally. Florida raised the drinking age from 19 to 21; the city tightened open-container laws. The numbers plunged. "Back in the day it was belly-flop contests, nickel beers and hot-dog stands," says Stacy Ritter, head of the city's tourism agency. "These days it's a different kind of college student, the kind that carries daddy's American Express card." Though police expect double to triple as many students as last year, Fort Lauderdale's spring break remains largely peaceful.

Farther west, city efforts have also had more of a bite. After students wrecked motels and trashed the waterfront of Gulf Shores, Alabama, in 2016, a ban on alcohol at the beach and a forceful crackdown sent them scurrying. "We had the gun loaded, ready to pull the trigger," says the mayor, Robert Craft. Few have returned.

Spring-breakers are not unwanted everywhere. South Padre Island, off the Texas coast, spent $15,000 advertising on college campuses this year. Its population more than doubles when students arrive. It is easier to patrol than bigger cities, and its proximity to the Mexican border means there is already an overload of officers. But if its campaign is too successful, it may want to boot the college crowd out too.

Back in Miami Beach police are afraid to lay down the law. "With social media these days, whatever we do will be wrong," one says. The city is sponsoring night-time shows to tempt visitors away from the chaos. But volleyball tournaments are not what lured the fraternity brothers south. ■

Mother Earth's bounty

An Apache battle in Arizona

Mining, religious liberty and environmentalism collide in the Copper State

About 50 miles (80km) east of Phoenix, Arizona, the desert turns to mountains. Some 3,000 feet above the plain lies Oak Flat, an 800-acre expanse known in Western Apache as Chi'chil Bildagoteel. The land is sacred to several native American tribes. "For us it's a female place," says Wendsler Nosie, a former chairman of the San Carlos Apache, evoking its life-giving quality. "You can be born there and die there and it has everything for you."

One of the world's largest copper deposits sits beneath Oak Flat. Mining it would supply a quarter of the copper America needs for at least four decades, and provide thousands of jobs. Copper is used in renewable-power generation, and demand is growing. The federal government, the owner of the land, plans to transfer it to Resolution Copper, a joint venture between Rio Tinto and BHP, two multinational mining companies.

Hoping to block the transfer, Apache Stronghold, a group of tribespeople led by Mr Nosie, has taken the government to court. Its members say that establishing a mine at Oak Flat would violate their religious freedom by destroying the centre of their faith. In June 2022 they lost in a two-to-one decision in the 9th Circuit Court of Appeals. But in November the court said it would rehear the case *en banc* (meaning with a panel of 11 judges). The judges duly heard oral arguments in Pasadena, California, on March 21st.

A ruling in Apache Stronghold's favour could save Oak Flat. But it could also be costly to Arizona, which stands to gain $60bn over the life of the mine. And scrapping the project could hinder America's green transition. Unless domestic copper-mining were expanded elsewhere, imports would have to make up the shortfall. And as competition for copper grows elsewhere, too, America risks losing out.

Fewer than 1% of requests for rehearing *en banc* are granted. It is rarer still for a court to decide to rehear a case of its own accord, as it did in this instance. That suggests that many 9th-circuit judges are interested in thinking through the conundrum posed by Oak Flat. Though American law is designed to protect all faiths equally, native American claims have often fared badly. Courts have ruled that when the government prevents a church from building an extension, it may be curtailing religious freedom. But sacred native American sites have been lawfully bulldozed.

Stephanie Barclay, of the University of Notre Dame, who represents the National Congress of American Indians in the Oak Flat case, argues that the federal government has a history of showing "callousness, disregard and, I think, contempt" for native American faith. In one instance the federal government changed the design of a road to protect a tattoo parlour, but de-

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stroyed a native American holy place.

The First Amendment protects freedom of religion in broad terms. In 1993, following a Supreme Court decision in 1990 that watered down that liberty, Congress passed the Religious Freedom Restoration Act. This law forbids the federal government to place a "substantial burden" on religious practice unless it can show a "compelling interest" in doing so. However, it did not clarify how that burden should be defined. At the hearing this week the judges probed the parties on the concept of substantial burden.

In 2008, in *Navajo Nation v United States Forest Service*, the 9th Circuit Court ruled that the government was not imposing a substantial burden on native American faith by allowing a ski resort to use treated sewage water to make artificial snow on a sacred mountain. Drawing on earlier cases, the court held that the government creates a substantial burden only when it penalises a person for upholding their religious beliefs, or when it denies them something to which they are entitled, such as unemployment benefits.

Burdens and proof

When the court considered the fate of Oak Flat last year, it was bound by the *Navajo Nation* ruling. But *en banc* cases can revisit precedents. Apache Stronghold wants the court to adopt a less pinched reading of "substantial burden". A mine that destroys a site of such significance is clearly burdensome, it says. If Oak Flat is destroyed, Mr Nosie says, "our children will no longer be who they are". Outside the courtroom on Tuesday protesters in native dress drummed home the message.

Those on the government's side say that applying those standards to cases involving federal land would create a slippery slope. It would be easy, they argue, for faith groups to make demands on huge tracts of federal land, unreasonably hindering the government. If the mine were abandoned local people—including native Americans who support the project—would lose jobs and money. But a ruling in Apache Stronghold's favour would narrow the gap between how Western and native religions are protected by the law.

Whatever the outcome at the 9th Circuit, the Supreme Court will probably have the last word. In the past a conservative bench might have spelled trouble for Apache Stronghold. Today's court may be different. Justice Neil Gorsuch, appointed by President Donald Trump, is an expert on American Indian law and has championed native American religious rights. And the current bench seems invested in protecting religion. Of 22 religious-freedom cases brought before the court since 2012, 21 decisions have expanded those freedoms, 18 of them unanimously. ■

Farming

Delta veld

NEW YORK

White South African migrants become entangled in an old southern story

WHITE SOUTH AFRICANS started working on farms in Mississippi more than two decades ago, if Andrew Johnson (pictured) remembers correctly. At Pitts Farm, where the sexagenarian farm worker was formerly employed, records show that clipped accents became a mainstay in 2014. The South Africans were good guys, hardworking and kept to themselves. The fact that they were getting paid 60% more wasn't their fault, Mr Johnson says. "They didn't know what we was getting, we didn't know what they was getting."

Each year, several thousand South Africans come to America on seasonal H-2A visas as temporary agricultural workers. The visa was first introduced in 1986. Employers must pay for flight tickets, housing and food, and dish out a premium hourly wage. Persistent farm-labour shortages across America have pushed visas up by 211% from 2011 to the 2021 fiscal year. South African hires, leaving behind a poor economy and high crime rates, have increased by 692% in that same period, and now make up the second-largest group of H-2A workers—exceeded only by Mexicans.

But those arriving in Sunflower County, Mississippi, face a strange reality. Since over 70% of the population is black, the temporary hires have become entangled in the oldest story in the South. A spate of recent lawsuits in the state of Mississippi alleges that what first appeared to be a temporary need for foreign hands may have become a preference, to the detriment of the local, black and poor workforce.

PEARL
SOFTBALL

Andrew Johnson, farmer

In 2021 the Mississippi Centre for Justice, a non-profit law firm, brought the first lawsuit on behalf of six black workers, including Mr Johnson. Although the visa programme requires locals to get a rise if the calculated H-2A wage is higher than local salaries, they alleged they never received a pay bump, claiming that in 2020 they made $7.25 for every $11.83 the South Africans received. Toilet use, too, revealed a hierarchy: 74-year-old Walter Griffin, one of the plaintiffs, recalls the indecency of having to "use the elements" while the South Africans used indoor facilities.

Because the South Africans were new to the equipment, climate and the farming techniques of the American South, they required training. And this responsibility fell on the shoulders of the black workers, who say they realised too late that they were teaching their replacements. According to a Department of Labour audit of the farm's operations from 2020 to 2021, four local workers lost out on shifts when new recruits arrived. The Pitts Farm lawsuit was settled in December for an undisclosed figure, as was another lawsuit brought in 2021 against Harris Russell Farms. Four more lawsuits are now in the works.

According to several white farm-owners in the region, hiring from abroad is a necessity. Asking to speak anonymously because they feared a fine, or being perceived as racist, many farm-owners say the local folks are lazy, doing only the minimum work and waiting to receive handouts. By contrast, one Clarksdale farm manager says of the South Africans, "if I say jump, they say how high?" This attitude, he adds, is worth paying more for.

The language that some of the owners use, however, makes it difficult to know whether what's happening is just the laws of supply and demand in operation, or evidence of straightforward racism. Or, maybe, it is both. One Robbinsonville-based farmer, who hires about 15 South African workers every year, is not shy to say that rural black Mississippians have "babies like damn rabbits" and "live on food stamps".

Though the lawsuits have focused on farms in Mississippi, other states with high numbers of H-2A workers and historically poor, black farming populations should face similar scrutiny, suggests Amal Bouhabib, a lawyer at the Southern Legal Migrant Service, who worked on the Pitts lawsuit. In November 2022 the department fined 11 farms in the Delta, eventually recovering more than $130,000 in wages for 45 workers. Louisiana and Arkansas are next on the list. As H-2A workers start coming to America for the beginning of the sowing season, the feds will start knocking on barn doors. ■

Deplorables

White-noise power

PROVIDENCE, RHODE ISLAND

Anti-Semitism in America is becoming flashier, louder and rarer

ONE CHILLY morning in January residents of Blackstone, a posh neighbourhood in Providence, Rhode Island, woke up to find Ziploc bags strewn across their lawns. Stuffed inside were recruitment pamphlets looking for men "of European descent" who wish to see a "better future for [their] people". The pamphlets were distributed by NSC-131, a New England-based neo-Nazi group. Targeting Blackstone was no fluke—the neighbourhood is home to Rhode Island's largest Jewish population. Adam Greenman, head of a Jewish community centre there, says it is part of a growing trend. According to his office's tally, anti-Semitic incidents in Rhode Island have more than doubled in the past year.

On paper anti-Semitism would seem to be rife in America. The Anti-Defamation League (ADL), an advocacy group, recorded about 2,441 hate incidents targeting Jews in 2022, after a peak of 2,717 in 2021. Yet by some measures anti-Semitism is also declining. According to ADL's data, incidents of isolated harassment and vandalism decreased last year by 35% and 30% respectively. The FBI has also seen a decline in hate crimes against Jews, from a high of 963 in 2019 to 817 in 2021, the most recent year on record. About 6m American adults identify as Jewish.

One answer is that white supremacist groups have taken online trolling and applied it to the offline world. In 2022 white supremacist groups staged 40 demonstrations, 25% more than in the previous year and a tenfold increase since 2017. Some groups, such as Goyim Defence League, which ADL describes as "a small network of virulently anti-Semitic provocateurs" founded around 2018, send its members on cross-country tours.

Their numbers may be fairly small, but white supremacists have found an old-fashioned way to seem ubiquitous. Carla Hill, head of ADL's Centre on Extremism, says white supremacist groups have embraced printed propaganda as the way forward for their movement. In 2017 a handful of groups distributed anti-Semitic pamphlets a few dozen times across 20 states. Last year more than 30 groups spread anti-Semitic messaging 852 times in every state except Hawaii and New Mexico.

A tactical turn came after a violent gathering at the Unite the Right rally in Charlottesville, Virginia, in August 2017 left one person dead and dozens injured. The rally triggered a split among white supremacists, some of whom thought the violence went too far. "Do you do the openly and blatantly white supremacist in their face? ...or do you put it in a more acceptable framing, so that more people will come over to your side and then work at them over time to get them on board?", Ms Hill says they asked themselves.

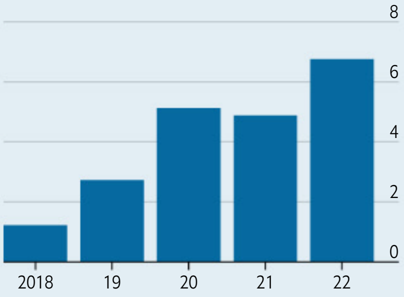
Often done under the cover of night, leaflet drops allow perpetrators to remain anonymous. If caught, they may get away with a minor citation for littering or trespassing. As deplorable as it may be, in many cases hate speech is protected by the First Amendment, though some states are trying to find ways to curb it. In New Hampshire the Department of Justice recently brought civil charges against two members of NSC-131 who hung a banner from an overpass reading "Keep New England White". The argument is the two men trespassed on government property to terrorise people through racial hatred, an offence punishable under the state's Civil Rights Act. If successful, it would allow prosecutors to pursue criminal charges against the group for future violations.

Pamphleteering is now a membership requirement for several groups. The Texas-based Patriot Front, most prolific of the pamphleteers, requires members to do it every week. Ms Hill says some groups have even started working together to spread each other's propaganda. Patriot Front has softened the tone of its leaflets to mask its horrible ideology, scrubbing white supremacist language and including lines such as "Defend American labour" and "Strong families make strong nations".

The greatest harm, says Ms Hill, comes from online amplification of the stunts, which often get posted on group chats and social-media channels, giving hate groups an outsize impact. "A dozen people or so can do a lot of damage to a community, making them feel like [their presence] is much bigger than it is," Ms Hill says. That knowledge might offer Providence's Jewish residents some comfort. ■

Not what it seems

United States, incidents promoting white-supremacist propaganda*, '000



Source: Anti-Defamation League *Eg, fliers, graffiti and posters

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US v China

Ageism

LOS ANGELES

How young Americans see China

THE COMPETITION between America and China is infiltrating college dorm rooms. Citing national security concerns, at least 29 states have banned TikTok, the video app owned by ByteDance, a Chinese firm, on government devices. Many universities also banned students from using the app on campus wifi. In practice, that means students will use data, not wifi, to watch videos of friends revealing their outfits for sorority recruitment. But young people's surprise over the TikTok bans may also reveal how differently they view China from their parents.

Recent polling from *The Economist* and YouGov shows the startling difference in Americans' views of China by age group. Roughly 25% of Americans aged 18 to 44 said they view China as an enemy, compared with about 52% of those 45 and over (see chart). Almost as many young Americans said they view China as "friendly" as those who said the country was an "enemy". Just 4% of older Americans see China as friendly.

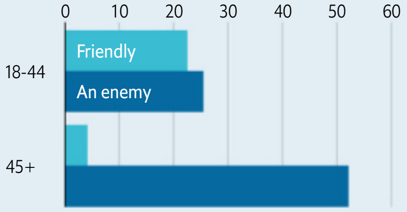
Young Americans were also less likely to see Russia as an enemy than their older peers, though all ages expressed more hostility towards Russia than China. This is probably due to the war in Ukraine, and older Americans' lingering dislike for the Soviet Union during the cold war.

Meanwhile, views of China among partisans are shifting. Republicans have long been more likely than Democrats to view China as an adversary. But both parties have become more hawkish. When Donald Trump took office in 2017, just 10% of Democrats and 20% of Republicans said they believed China to be an enemy. As of last week, 34% of Democrats and 48% of Republicans took this view.

Not your father's cold war

"Do you consider China to be friendly to, or an enemy of, the United States?"

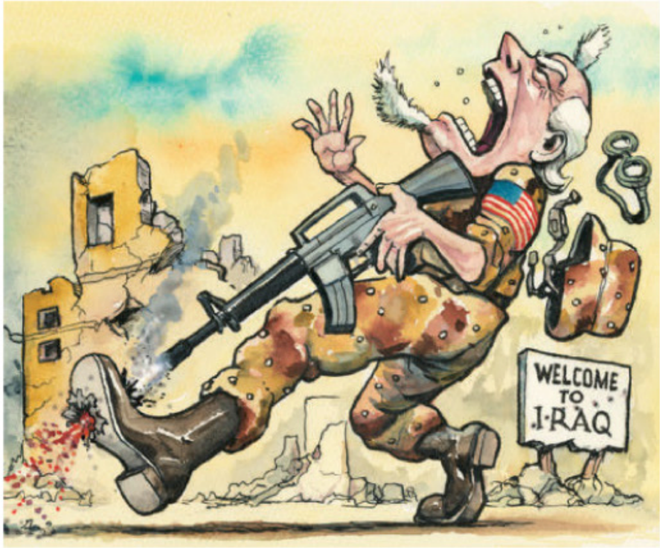
United States, % responding* by age group



Source: YouGov/*The Economist* *March 11th-14th 2023

Lexington | Getting over Iraq

After 20 years America is struggling to recover from the war's bitter lessons, at home and abroad



TWENTY YEARS ago, President George W. Bush stood before the American people and proposed a radical intervention to head off a growing menace in one of the world's most troubled regions. "Seldom has history offered a greater opportunity to do so much for so many," he said in his state-of-the-union message in 2003.

The years would prove him right. Millions more people would have died of HIV/AIDS in Africa if Mr Bush had not defied his party's isolationist wing, ever contemptuous of foreign assistance, and pressed Congress to spend billions of dollars on what became, at least pre-covid, the largest commitment ever by a nation to fight a single disease. Mr Bush's initiative was not just compassionate but wise. Would that it was his defining act.

In that same speech Mr Bush pivoted from his few sentences about fighting AIDS to the threat he said Saddam Hussein posed to America and his own people. "If this is not evil," he said, in his moralistic key, "then evil has no meaning." He said that the secretary of state, Colin Powell, would soon disclose intelligence to the UN Security Council about Iraq's weapons programmes and links to terrorists. But he made clear that, if he thought it necessary, he would act against Saddam without the UN's blessing.

Pick a sorrow from the millions that ensued: an Iraqi child who lost both parents to an American missile; a man standing on a box in the Americans' Abu Ghraib prison with a sack over his head and his arms spread, wires twisting from his fingers; an American veteran who cannot stop drinking, cannot sustain a relationship, cannot sit without his back to a wall. Any one is enough to make you wish you could run back down the hall of history, calling to Mr Bush to stop. You need not even pause to survey the bigger picture—the empowerment of Iran, the rise of Islamic State, the metastasis of the Syrian civil war, the soiling of America's image, and self-image, as competent, honest and decent.

There were voices raised against the invasion, of course, but America's interlocking political, security and media elites—its establishment—rallied behind it. During a Senate debate over the Iraq-war authorisation, Senator Joe Biden recalled "the sin of Vietnam" and "the failure of two presidents to level with the American people" over that war's costs. Then he voted for the measure. Three years later, he called that vote a mistake.

Not all America's woes can be traced to that fateful invasion, when America's arrogance rather than its generosity—the flip sides of its idealism—became its global calling-card. The global financial meltdown later that decade rounded out the failure of the establishment. But the Iraq war propelled America down the road to Donald Trump.

Barack Obama represented hope of sharp change from Mr Bush, yet those two leaders were much more like each other than like the president who came next. They obeyed the conventions of American politics, probably unaware of how brittle those had become: that expertise mattered; that the press, though flawed, was after the truth; that the meritocracy was real; that not everyone was out just for money and power. They both promoted two central ideals of American public life: that in the world America had causes beyond the pursuit of raw national interest, and that at home the national interest superseded the political one.

Mr Trump told Americans what they had come to suspect, that all this was crap. America should have taken Iraq's oil. Generals could be fools, and even so-called war heroes could be losers. America should use more severe forms of torture than waterboarding. China was raping America while its leaders did nothing. The press lied. The experts lied. Politicians, of course, lied all the time. The establishment was out for itself. You were a sucker if you did not assume corruption and self-seeking were the essentials of human behaviour. "You think our country's so innocent?" Mr Trump said, when asked how he could defend Vladimir Putin.

Mr Biden, a throwback in so many ways, is trying as president to restore the idea of American idealism. America is meant again to be the guardian of a rules-based international order. Much has been made of the administration's decision, on the eve of Russia's invasion of Ukraine, to share intelligence about what was to come. Yet that is what Mr Powell did, in greater detail, at the United Nations. The difference was that this time the intelligence was correct. This time America has matched its words and deeds. It has sought and sustained support within the UN. It has led competently, in Ukraine if not Afghanistan, and meant what it said about rights and democracy. So far.

Who are the trusted?

Mr Biden recently recalled how, after he assured European leaders two years ago that America was back in the struggle against autocracy and climate change, Emmanuel Macron of France replied: "For how long?" Mr Biden is right to feel haunted by that challenge. If Mr Trump has his way with the Republican Party, and he usually does, it will swing from imagining just 20 years ago it would swaddle the planet in democracy to advocating its surrender to Russian dominion in Europe.

At home, idealism may seem to be staging a comeback, but that is only on the surface. On the right, the American Greatness school has yet to clothe Trumpism in an ideology amounting to more than grandiose self-interest. On the left, identity politics has licensed the meritocratic elite—including the new socialists—to ignore class, to celebrate their own enlightenment and to feel contempt for poor white Americans. Americans' embrace of consoling ideologies is making them even more righteous and credulous than they were on the eve of the Iraq war, provided the propaganda comes from their own side.

Mr Bush is said not to regret the Iraq war. He should. In service to his decency rather than his hubris, his persistence might have endured as an example for a far better America. ■

Regional integration

NAFTA 3.0

SAN LUIS POTOSÍ AND VAUGHAN, ONTARIO

As the United States pulls away from China, it needs its neighbours

ECONOMIC INTEGRATION in North America tends to inspire extreme views. The most famous recent critic, Donald Trump, referred to the continent's original free-trade pact as "the worst trade deal maybe ever". By contrast, evangelists for cross-border links say they are making North America the world's most dynamic region.

Roughly equidistant between these two poles is North America's solid, though unspectacular, commercial reality. The continent's trade in goods and services has quadrupled in nominal value since the North American Free Trade Agreement (NAFTA) went into force in 1994, to more than $7trn, or roughly 30% of GDP. But that is slower than the sixfold growth in trade experienced by the rest of the world over that time. Intraregional trade connections have become denser in Europe and Asia. Canada and Mexico do oodles of business with the United States but little with each other.

The regional economy may be on the threshold of something bigger. A few forces are coming together now to boost its prospects. As tensions between the United States and China increase, companies that had come to rely on China for manufacturing are shifting to other bases. Production snafus during the covid-19 pandemic illustrated the fragility of globally dispersed supply chains. And the embrace by President Joe Biden's administration of industrial policy, fuelled by generous subsidies for electric vehicles (EVs) and clean energy, has super-charged investment in the United States. That inevitably is spilling over into Canada and Mexico.

In 2022 the United States' trade with its neighbours to the north and south far outstripped its trade with China. On March 15th American regulators approved the first big railway merger in two decades, which will link all three countries. And on March 23rd, as *The Economist* went to press, Mr Biden was due to meet Justin Trudeau, his Canadian counterpart, during his first visit to Canada since he came to office in 2021.

The theory of the North American economy has always been compelling. Many of the world's biggest and most innovative companies are based in the United States. Mexico offers inexpensive labour and land right on its doorstep. Canada is richly endowed with natural resources, with a burgeoning tech ecosystem to boot. The heft of the consumer market in the United States plus the potential of Mexico's round off the enticing package. In practice, though, the car industry stands out as one of the few to truly embrace cross-border models, with production networks from Monterrey to Ontario tightly intertwined.

The question for North American officials and executives is whether they can pursue the same kind of integration in a wider range of strategically important sectors, from batteries to semiconductors. It is also a test of whether a shift now under way from globe-spanning trade to more regionally concentrated commerce is viable. Where North America goes, the rest of the world may follow.

Mexico once had deep misgivings about NAFTA. Those days are long gone. Even under President Andrés Manuel López Obrador, a populist nationalist, nobody questions the United States-Mexico-Canada Agreement (USMCA), NAFTA's similar-looking replacement negotiated by the Trump administration (which Mr Trump, naturally, called the best trade deal ever). More than three-quarters of Mexico's exports go north of the border. The decision in February by Tesla, an American EV manufacturer, to build a plant in the northern state of Nuevo León has been hailed as a sign of things to come. It will start with a $1bn investment and may grow to $10bn.

Last year Mexico's economy minister said some 400 companies were interested in relocating facilities from Asia to Mexico. Andrés Benavides of Daikin, a Japanese air-conditioning manufacturer, says the company is moving some of its production for the American market from Thailand to Mexico. It plans to hire 2,000 people in Mexico over the next 18 months. The company has also brought lines of manufacturing down from the United States. A big draw is the availability of labour. And manufacturing wages are far cheaper in Mexico than in China.

Investments tend to be in well-established industries, especially car-manufacturing, Mexico's primary export industry. Many also represent expansions by companies already in Mexico. Volkswagen, BMW and Kia were among those to announce investments last year, partly focused on shifting production towards EVs. Optimists think there could soon be a large batch of new arrivals, too. Lorenzo Berho of Vesta, an industrial-park builder, says they have demand "as never before".

Mexico's banking body reckons that Tesla's investment could encourage as much as $25bn more. Given the concerns about globally dispersed production, that knock-on effect might be more potent than in the past. Harald Gottsche, head of a BMW plant in San Luis Potosí, says that for one production line the share of locally produced parts will increase, "to be more resilient against supply-chain disturbances".

But Alberto de la Fuente, who heads the Council of Global Companies in Mexico, a body that represents big international companies, warns that the wave of investment is still more hoped-for than real at this point. Foreign direct investment rose to $35.3bn in 2022, or nearly 3% of GDP, the highest figure since 2015, but local analysts say this can be accounted for by a couple of big investments. Banorte, a Mexican bank, estimates the country could gain $168bn in exports over the next five years, on top of its annual exports of about $500bn now, but it puts the gains in a range between $84bn and $300bn.

As well as the usual headaches such as security and logistics, new ones are being added by the government. The primary one is energy. In an attempt to protect Mexico's ailing state electricity company, CFE, Mr López Obrador introduced reforms which give priority to CFE's electricity, no matter how dirty or expensive its plants. This will reduce the scope for profitable investment in private generation, which in turn leaves Mexico potentially short of electricity. It also makes it more expensive. Meanwhile companies are struggling to get clean energy, which they need to meet their goals for reducing carbon emissions.

Mexico is throwing less public money at investors, even as the United States boosts its industrial policy. Mr López Obrador got rid of ProMéxico, an organisation that promoted investment. Now states go out and sell themselves. There exist few federal incentives for investment. Some states offer cheap land, but not the tax breaks that many of their American counterparts do. Nevertheless, this lack of support is more likely to slow the tide than stop it. An executive at a manufacturing firm quips that even on "automatic pilot" Mexico benefits from nearshoring.

Canada does not have the same luxury. Whether looking at wages, land costs or green regulations, Canada is sufficiently similar to the United States to mean that the introduction of major subsidies for EVs, battery production and clean energy has the potential to alter the competitive balance between the two countries.

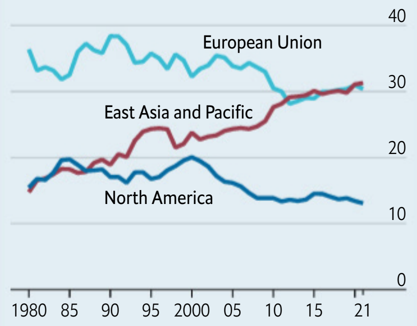
The budget, due on March 28th, is expected to offer a bundle of tax credits and other subsidies as Canada's response to the United States' muscular industrial policy. With an economy less than a tenth the size of the United States', Canada cannot compete dollar for dollar, but it can target specific parts of supply chains. Dennis Darby of Canadian Manufacturers and Exporters, an industry group, says that, without more support from the government, Canada faces the risk of capital draining away. Some companies, he says, are being told by their American customers that they could cut costs by moving south of the border.

An indication that Canadian officials may be up to the challenge came on March 13th when Volkswagen, a German carmaker, announced that it would build its first EV battery plant outside Europe in Ontario. Neither the federal government nor the provincial government has spelled out the incentives involved, but the budget may shed light on them. Volkswagen's investment also reflects the fact that at least some of the Biden administration's policies are designed with the broader region in mind. Tax credits for buyers of EVs specify that the content can be made anywhere in North America.

Canada has a partial head start in shifting towards a cleaner growth model. Mr Trudeau's government introduced a carbon-pricing system in 2018, pushing businesses to invest in more efficient facilities. Many in industry complain that Canada's policies amount to a big stick, whereas the United States is lavishing carrots on its companies with its suite of incentives. On closer analysis, though, the problem in Canada is sometimes not a lack of incentives but rather that its carrots are chopped-up and messy. The Canadian Climate Institute, a campaign group, calculates that subsidies due in 2030 for carbon-capture investments in Alberta's oil industry are spread across several pools but run to C$135-275 per sequestered tonne, more than the C$115 per tonne on offer in Texas. Rather than piling on more subsidies, the task for Canada is to streamline what it already offers.

Lagging behind

Trade in goods and services, % of world total



Source: World Bank

Perhaps the biggest thing that Canada brings to the North American table is its richness of natural resources. Canada has a relatively small share—3% or so—of the world's known reserves of critical minerals such as lithium and manganese, which are needed for batteries, semiconductors, hydrogen fuel cells and more. But the government believes that much more lies beneath the ground, and is working to encourage more exploration, unveiling its first critical-minerals strategy at the end of 2022. Marc Gilbert of Boston Consulting Group thinks Canada needs to get a foothold in higher-value segments of the industry.

Canada, like Mexico, is already heavily dependent on the United States, with three-quarters of its exports going there. That figure would probably only increase if Canada ramps up its production of critical minerals. Some of the businesses that straddle the continent are bullish. At his company's headquarters in Vaughan, Ontario, Rob Wildeboer of Martinrea, a car-parts company, sits in an office that displays both a bottle of fine tequila from Mexico and a large photograph of a Canadian ice-hockey match. He envisions a more closely integrated North America, in which he would be able to bring workers from Mexico into the United States and Canada for short stints. "It's going to be North America's century," he says.

Economic data counsel caution. Manufacturing in North America is worth about $2.5trn per year. In Asia it is closer to $7.5trn. China's factory sector alone is about 20 times larger than Mexico's. Nevertheless, it is salutary to remember that the United States is not attempting to lure all industry away from China. Rather, it is focused on segments such as batteries and semiconductors that it has deemed especially important to its national security and its economic future. It will not be easy. But with Canada and Mexico pulling in the same direction, it has a far better shot than going it alone. ■

India and Japan

Under a bodhi tree

DELHI AND TOKYO

Fear of China has made India and Japan close. They could be much closer

THE MUGHAL PRINCE Dara Shikoh was beheaded in 1659 after publishing a scandalous book, "The Confluence of the Two Seas", in which he identified a spiritual affinity between Hinduism and Islam. In 2007 Abe Shinzo, then Japan's prime minister, borrowed the book's title for a stirring speech to India's parliament in which he called for the Indian and Pacific oceans to be seen as one strategic space, and for Japan and India to recognise their shared interests. Those ideas, the basis for taking an expansive Indo-Pacific view of Asian security, are now widely accepted among Western strategists. "Without the Japan-India relationship, there is no Indo-Pacific," says Kenneth Juster, America's ambassador to India from 2017 to 2021. "That relationship is vital to why we have this concept, and to the future of the region."

Kishida Fumio, Japan's prime minister, endorsed that on March 20th during a two-day visit to Delhi. "India is the place where the Free and Open Indo-Pacific came into being," he declared. Asia's biggest democracy and its richest one were on opposite sides in the cold war. But over the past decade and a half they have dramatically improved their diplomatic, economic and security ties. Their aim is to forge a democratic counterweight to China. And their progress, as Mr Kishida and Narendra Modi also stressed in Delhi, will be conspicuous in international diplomacy this year, with Japan chairing the G7 and India the G20. The Japanese and Indian leaders spoke of trying to improve co-ordination between the two groupings.

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The countries' leaders attend annual bilateral summits; this was Mr Kishida's second visit to Delhi in two years (see chart on next page). Japan is a big investor in India's accelerating infrastructure development. Last year Mr Kishida promised an additional 5trn yen ($42bn) in Japanese investment over the next five years. India and Japan are, with America and Australia, members of the Quadrilateral Security Dialogue, or "Quad", a once stop-start grouping that was revived in 2017. The Indian and Japanese armed forces exercise together increasingly often; they conducted their first joint fighter-jet drills earlier this year.

This closening relationship is based more on shared fears than common values. Both countries have longstanding territorial disputes with an increasingly aggressive China—India along its northern land border, and Japan over the uninhabited Senkaku/Diaoyu islands in the East China Sea. Both are wary of growing Chinese influence in their wider region, and what it will mean for the maritime lines of communication each relies on. Each sees the other as central to confronting the security challenge that China poses.

For Japan, which initiated the bilateral detente in the early 2000s, that conclusion was sharpened by an early sense of India's potential. "We believed that India would be a future big power," says Ishii Masafumi, a former Japanese diplomat. “And it’s safe to say that China is the largest challenge for India, like it is for Japan.”

The partnership has some useful underpinnings. Officials in both countries point to their shared tradition of Buddhism. In 1948 Radhabinod Pal, an Indian judge, became a hero for Japanese nationalists when he cast the lone dissenting vote at the Tokyo trials, in which Japanese imperial leaders were convicted of war crimes. (Abe visited Mr Pal’s descendants in 2007 after making his Two Seas speech.) There are some personal ties between the countries’ elites: India’s influential foreign minister, Subrahmanyam Jaishankar, is married to a Japanese woman, Kyoko.

More important, decades of Japanese investment and aid, mostly low-cost loans, have given Indians a sunny view of Japan. According to a poll by the Pew Research Centre, Indians regard Japan positively by two to one—a brighter view than they have of any big country other than America. And where America can be polarising in Indian politics, Japan is not, says Christopher Johnstone of the Centre for Strategic and International Studies in Washington: “Japan is viewed differently and has an advantage that we, America, don’t have.”

As Mr Kishida was driven around Delhi this week, he will have seen streets teeming with Japanese influence. Indian officials tend to favour large Toyota vans and SUVs. By far the commonest cars on the capital’s roads are nifty Maruti Suzukis, weaving through traffic at optimistic speeds. Suzuki, a Japanese firm that entered the Indian market in the 1980s through a joint venture with the country’s government, still accounts for over 40% of cars sold in India.

The Japanese imprint extends underground: Delhi’s metro was built with Japanese help. Japanese firms are also helping plan a high-speed rail link between Mumbai and Ahmedabad in Mr Modi’s home state of Gujarat, a project close to the heart of the Indian prime minister. And they have helped build infrastructure in India’s long-neglected north-east—in part to counter growing Chinese involvement in the region, says Horimoto Takenori, a Japanese scholar of India.

Yet for all the countries’ overlapping interests, in some ways their relationship is struggling to fulfil its potential. India-Japan trade and investment fall far short of what was once envisaged—despite the seeming complementarity of young, developing, labour-rich India with ageing, technologically advanced, capital-rich Japan. In 2006 Abe mused that Japan’s trade with India might surpass that with America and China within a decade.

But in 2022 China accounted for 24% of Japan’s imports and 22% of its exports; India represented just 0.8% of Japan’s imports and 1.7% of its exports. In 2014, during Abe’s second term, he and Mr Modi vowed to double the number of Japanese companies in India within five years. But by 2019 the number had grown from 1,156 to only 1,454. (Over 13,000 Japanese companies were present in China that year.)

Abe also failed to persuade India to join the Regional Comprehensive Economic Partnership, a big Asian trade pact that China takes part in. Even now, as investors look to diversify from China, it is striking how rarely Japanese ones are involved in key Indian sectors such as ports, airports and energy, reckons Dhruva Jaishankar of the Observer Research Foundation America, the American offshoot of a Delhi-based think-tank. (Mr Jaishankar is the son of India’s foreign minister.)

Much less than Abe wanted

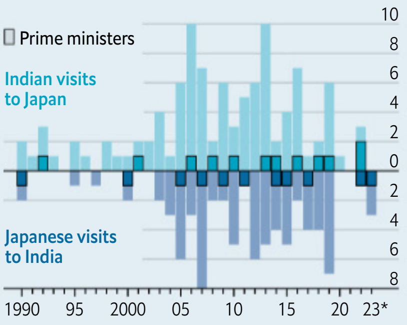
On defence and security, too, ties amount to less than meets the eye. Japan and India have signed several defence-equipment transfer agreements in the past decade. But there has been little actual co-operation between their defence sectors. A Japanese bid to attract interest in a new amphibious aircraft fizzled because India thought it too expensive. An initiative by India to acquire Japanese submarines failed because Japan hesitated to transfer the technology. Though the two armies are exercising more together, their rudimentary drills are more getting-to-know-you exercises than a serious preparation for either country to come to the other’s military aid.

In part this reflects divergent military priorities. While India and Japan are equally worried about China, “the nature of the concern is different”, says Kurita Masahiro of the National Institute for Defence Studies in Tokyo. China presents mostly maritime challenges for Japan. India, which shares 3,440km (2,100 miles) of border with China, much of it disputed, is more focused on possible land warfare.

The bilateral underperformance is especially frustrating to Japan. It is “getting a little worn down by the slow pace of Indian strategic change”, says Michael Green of the United States Studies Centre at the University of Sydney. “India has been replaced in the Japanese dance card by Australia.”

Currying favours

India and Japan, ministerial visits



Source: Ministry of Foreign Affairs of Japan *To March

Last year Japan and Australia signed a pact to improve defence co-operation. America, too, has been putting less stress on the Quad and more on AUKUS, an ambitious new alliance between America, Australia and Britain to establish a fleet of nuclear submarines capable of countering China in the Pacific.

Even optimists in Tokyo reckon that engaging India is a long-term investment with uncertain returns. “We know they will be a very difficult superpower—like a big France,” says Kanehara Nobukatsu, a former deputy national-security adviser to Abe. India’s stance on the war in Ukraine illustrates this. Japan stands with America and other Western allies against Russia’s aggression, a stance Mr Kishida reiterated this week. From Delhi, he travelled to Kyiv to meet Ukraine’s president. India, which maintains close ties to Russia, the source of much of its energy and most of its arms imports, has stayed neutral. In September 2022 it took part, alongside China, in Russia’s Vostok naval exercise, which skirted a group of Russian-controlled islands, north-east of Hokkaido, that Japan claims as its own.

India, for its part, has long been frustrated with Japan’s restrictive immigration policy. “The lack of people-to-people exchanges is a massive gap,” says Ajai Shukla, a security analyst in Delhi. In 2021 the two countries agreed to co-operate on a new Japanese foreign-worker programme. Yet visas are restricted to 14 professions and mostly limit stays to five years without family. The resulting lack of a sizeable Indian diaspora in Japan makes it harder to form the deep ties India has with America, Britain and some Gulf countries, which Indians have been emigrating to for decades.

The relationship also lost an important personal element when its main architect, Abe, was assassinated last summer. “Modi doesn’t have many friends abroad, but Abe was an exception,” laments Dr Horimoto. In Delhi this week Mr Kishida tried to press further along the bilateral pathway his predecessor laid by inviting Mr Modi to attend the G7 summit in Hiroshima in May. Japan wants to use its turn running the G7 to boost outreach to the developing world, and sees India as a key conduit. “Without India, we can’t engage the Global South,” Mr Kanehara says.

That is testament to just how far the relationship has progressed, despite its various areas of shortfall. Asia’s democracies stand increasingly united across the region’s two great seas. India and Japan sit at their south-western and north-eastern extremes—and fear of Chinese assertiveness lies at the confluence. ■

North Korea's food crisis

The hungry people's republic

SEOUL

Kim Jong Un prefers weapons to well-nourished people

Hunger makes people desperate. On February 10th a starving man in his 70s took a stand outside the communist party office in Hyesan, a city in the northern part of North Korea. As party members arrived for work, he called out, "I'll die of starvation if things continue like this, please give me food." Other famished people quickly joined him. When security guards tried to dispel the crowd, a skirmish ensued. In a country where causing a disturbance can get you sent to the gulag, or worse, dissent of this kind appears to be vanishingly rare.

Such incidents, reported by *Rimjin-gang*, a secret group of journalists operating inside North Korea, offer a glimpse of the closed-off state's growing food crisis. The UN reckons that between 2019 and 2021, 42% of North Koreans were malnourished. And as a result of poor weather conditions and a shortage of fertiliser—in part due to the country's self-imposed three-year quarantine—it had an especially poor harvest last year. Total food production was only 4.5m tonnes, down by 3.8% compared with the year before, according to South Korea's rural development agency. That is more than 1.2m tonnes less than the UN's World Food Programme estimated in 2019 was needed to feed the country.

Its statist agricultural system has long failed to produce enough food for North Korea's 26m people. A famine in the 1990s cost at least 200,000 lives—and by some estimates as many as 3m. The current hunger is less serious. "'We're certainly not there yet," says Lucas Rengifo-Keller of the Peterson Institute for International Economics, a think-tank in Washington. But, he adds, "it won't take much to reach that level." South Korea's government is sounding the alarm. It believes some North Koreans are already starving. Horrifying reports, including one of a seven-year-old found starved to death with two family members, are seeping across the border.

Trade is the likeliest source of relief, says Choi Eun-ju of the Sejong Institute, a think-tank near Seoul. But though official cross-border trade has been increasing, it is well below pre-covid-19 levels; Chinese trade data suggest that in 2022 North Korea imported more than 56,000 tonnes of flour and 53 tonnes of cereals. In the past, moreover, much of North Korea's food was imported off-the-books. And a decision by the regime of Kim Jong Un to close its borders in January 2020, ostensibly as a pandemic defence, has limited such food imports, as well as those of fertiliser. Newly built border fences guarded by soldiers with shoot-to-kill orders have apparently reduced food smuggling to close to zero.

North Korea's maize belt

The prices of rice and maize, which make up 98% of the country's cereal production, hint at the seriousness of the situation. Both are at five-year highs for March, according to *DailyNK*, a Seoul-based outlet with contacts inside North Korea. The cost of maize is rising fastest, suggesting that North Koreans are being forced to opt for that less calorific crop. *DailyNK* reports that ordinary people have also been called on to contribute "patriotic rice" to the country's armed forces.

The situation may be about to deteriorate further; the lean season before the first rice and maize harvest, known as the "barley hump", is imminent. And the weather promises no relief. Winter snow, which provides meltwater for irrigation, has been below average. North Korean media, which are admittedly less than reliable, warn of a possible drought.

The regime of Kim Jong Un is sufficiently worried to have acknowledged the crisis on several occasions. At a communist party meeting earlier this month, Mr Kim called on his cadres to usher in a "new era" of rural development. This intervention is additionally worrying. The famine of the 1990s was ultimately ended by small-scale private farming and trade, which sprang up amid the ruins of the country's Stalinist agriculture and distribution systems, notes Benjamin Katzeff Silberstein of the Stimson Centre, a think-tank in Washington. He and other North Korea-watchers believe these markets should be sufficient to prevent another severe famine. Yet the Kim regime appears to be intent on tightening its grip on them.

Rimjin-gang reports that the state has banned the sale of food in markets in some cities to give state-run food shops, which are selling grain at below-market prices, a monopoly. Other elements of Mr Kim's "new era", such as new irrigation systems and farming equipment, are longstanding but unfulfilled regime promises. North Koreans who spoke to *DailyNK* said they wished the government would focus on distributing food and fertiliser. "People on the verge of starvation aren't likely to do a great job" of farming, said one.

WFP has tripled its budget for North Korea for the first half of 2023. But the UN agency's staff are barred from entering the country and there is currently no sign that that will change. In February North Korea's regime newspaper derided foreign aid as "poison candy" and an insult to the country's "honour and dignity".

South Korea has also offered aid, with the proviso that the North must resume negotiating a possible end to its nuclear-weapons programme. But Mr Kim sees nuclear arms as the guarantor of his regime's continued existence. In March alone North Korea has launched five missiles, including an intercontinental ballistic missile and what state media claimed was the country's first submarine-launched cruise missile. For the Kim regime, guns will always beat butter. ■

Australian rivers

Death on the Darling

SYDNEY

Climate change and mismanagement imperil Australia's biggest river system

Yabbies, freshwater lobsters native to Australia, thrive in the outback for a reason. They can tolerate high temperatures and drought, and need hardly any oxygen in their water. Yet even for them the Darling river, which snakes through western New South Wales, is proving uninhabitable. Swarms of yabbies were recently seen scrambling out of its murky water. On March 17th the river was blanketed by millions of dead freshwater fish, herring, perch and cod, near the town of Menindee. Graeme McCrabb, a local, estimates the "line of dead fish" stretches over 100km. "It has an odour that's pretty unique," he says.

The mass fish death is the latest illustration of how climate change is combining with mismanagement to blight Australia's fragile environment. The Darling forms one arm of the Murray-Darling basin, a vast river system that covers much of Queensland and South Australia. It could hardly be more important—the system supports 40% of Australia's agricultural

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production and breathes life into the vast, arid outback. But it is in desperate state.

Climate change is bringing more extreme heat and drought, which caused the previous "mass mortality" in the Darling river system in 2018 and 2019. Drought brought the river to a standstill, depleting its oxygen. But the warming climate is also bringing more extreme precipitation and flooding, which is behind the latest die-off.

Eastern Australia has had three years of heavy rainfall. This summer the Darling burst its banks, submerging towns and washing tonnes of chemicals and organic matter into the water. That has caused bacteria to flourish, sapping oxygen from it, says Richard Kingsford, an ecologist at the University of New South Wales. A heatwave may have exacerbated this "blackwater event", since warm water holds less oxygen. The many dams and weirs that line the Darling then made it hard or impossible for stricken fish to escape to healthier water. So millions died; and their decomposition in turn drew more oxygen from the river, worsening the cycle.

Over-exploitation of the Murray-Darling's waters has made the system especially vulnerable to such shocks. Four states fight over them. A water-sharing initiative launched in 2012 was supposed to help conservation, yet there is little evidence that it has improved the basin's health. For Robert McBride, who owns a vast sheep station near Menindee, the Darling is paying "the supreme sacrifice for total mismanagement of the river system". After the recent deluge, water quotas were lifted so high that farmers could in theory drain some tributaries. That would prevent them flushing out "the putrid snot" that Mr McBride's animals are now drinking. ■

Banyan Keep your Kalashnikovs

South Korea looks sets to become the region's new weapons-maker of choice

Hard-wired into the psyches of those running South-East Asia is that they live in a dangerous world. Their region sees great-power competition between America, China and India. China has overlapping claims in the South China Sea with five South-East Asian states and asserts them aggressively. The professions of amity and consensus that dominate discussions in the regional club, the ten-country Association of South-East Asian Nations, are intended partly to paper over a history of mutual suspicion and conflict. In South-East Asia, strong defence is the starting-point for a strong state. Tiny Singapore spends almost 3% of its GDP on defence, more than any European country apart from Greece, Russia and Ukraine. In Myanmar, the generals turn weapons on their fellow citizens.

Where South-East Asian countries buy their arms is therefore a big issue—and Russia's faraway invasion of Ukraine has upended things. In the two decades up to the war, Russia was easily the region's biggest supplier, selling $11bn-worth of arms, with America, France, Germany and others trailing. Russia offered high-tech weapons at affordable prices, notes Ian Storey at the ISEAS-Yusof Ishak Institute, a research outfit in Singapore. It also accepted bartered commodities as payment. It did not give a hoot about human rights. And corruption helped grease deals.

Yet even before the war Russian arms sales were slowing. Vietnam, easily the region's biggest buyer from Russia, put a military modernisation on hold following concerns about corruption. Others worried about being punished by America after it passed sanctions legislation against Iran, North Korea and Russia in 2017. Indonesia abandoned a deal to buy Su-35 fighter jets; the Philippines shelved plans for Russian helicopters.

Since the war, Russia's sales to South-East Asia have collapsed and are unlikely to revive. Some states worry about the reputational risk of buying from Russia. All have seen how poorly some Russian weaponry has performed in the war. And even if Asian countries wanted to carry on buying Russian arms, it would be hard. Siemon Wezeman of the Stockholm International Peace Research Institute (SIPRI) says that tightened sanctions on Russia (including, in Asia, by Japan, Singapore, South Korea and Taiwan) will complicate Russian firms' access to the advanced technologies that are crucial not just for making arms systems, but also for upgrading them over their expected lifetime. Vietnam's armed forces, in particular, now look horribly exposed by their reliance on Russia.

Who will fill Russia's shoes? China wants to, but it does not look well-placed. Chinese arms sales in South-East Asia fell by two-fifths in the five years to 2021 compared with five years earlier. Singapore much prefers defence relationships with the West. Those in dispute with China in the South China Sea, including Vietnam, are hardly going to buy weapons from their potential adversary there.

There are also concerns about the quality of some Chinese kit. The former generals running Thailand struck a deal with China in 2017 to buy three submarines, worth about $1bn. Yet the project has run onto the rocks for lack of a viable Chinese engine. If Thailand curtails or cancels the contract, as Mr Storey argues is likely, it would be a huge embarrassment for China. Even Myanmar's brutal junta, ostracised by most of the world but not Russia or China, is disgruntled about the quality of a fleet of fighter jets made by a joint Chinese-Pakistani venture; it would send them back if only they were safe to fly. Partly in response, the junta has redoubled ties with Russia as it wages war on the opposition. Myanmar thus joins a long list of countries destabilised by Russian arms.

Indian arms-makers also hope to step into the breach—a deal looks imminent to supply Indonesia with BrahMos cruise missiles. But the big winner from Russian arms-dealers' exit is South Korea, an export powerhouse in other sectors which, SIPRI calculates, is now the region's biggest arms supplier.

Its weapons win on price, quality, offers of credit and prompt delivery. And South Korean suppliers are happy to transfer technology to their clients, starting with Indonesia, which is building naval vessels with South Korean help (the region has no indigenous defence industry to speak of). Also attractively, South Korea has little skin in the great geopolitical game that is playing out in South-East Asia. In the eyes of many in the region, that counts for a lot.

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Xinjiang

Nothing bad to see here

ISTANBUL

China wants the world to forget about its persecution of the Uyghurs

When fire spread through an apartment building in Urumqi last year, killing at least ten people, the public was horrified. Hundreds of people took to the streets in cities across China. At great risk, they voiced displeasure with covid-19 restrictions that may have stopped people escaping the blaze. But today the families of the victims are reluctant to tell their stories. Most are Uyghurs, a predominantly Muslim ethnic group native to the western region of Xinjiang, of which Urumqi is the capital. They have long been persecuted by the government, which has threatened more such treatment if they speak out.

China's attempts to silence the Uyghurs coincide with a diplomatic push in Europe, where it is hoping officials will forget about its grave human-rights abuses in Xinjiang. Since 2017 China has locked up more than a million Uyghurs and other ethnic minorities in "re-education" camps. Rights groups have documented campaigns of forced sterilisation, cultural assimilation and the destruction of mosques (a broken minaret is pictured). Lately, though, the appearance of state oppression has changed. China is trying to convince the world that Xinjiang is just like any other region in the country.

That is hard when Uyghurs talk of continuing abuse. But China has been working hard to keep them quiet. Those living abroad are sometimes threatened with deportation back to China if they speak up. Another tactic is to control contact between relatives. Kewser Wayit, a Uyghur in Boston, says he was unable to reach family in Xinjiang after he began speaking about his father's detention in 2019. Last year a Chinese policeman agreed to connect him with his parents, as long as Mr Wayit stopped discussing the matter publicly. But he broke his silence after his sister was detained in China for posting photos of protests ignited by the fire in Urumqi.

Uyghurs inside China still risk being locked up, just not in the re-education camps. In recent years the government has closed many of them and loosened some security measures in Xinjiang's big cities. But the number of inmates in the formal prison system has grown. Between 2017 and 2021 more than 500,000 people were prosecuted in the region (which has a population of 26m, of which around 11m are Uyghurs). That was a huge increase over the previous five years. Many of them received punishments without being tried, says Human Rights Watch, a global monitor. On average they seem to have been getting longer sentences.

All this is in keeping with China's long-term plan for Xinjiang. In 2018 the region's Communist Party secretary, Chen Quanguo, outlined goals that included "stabilisation", "consolidation" and "normalisation". Today his successor, Ma Xingrui, appears focused on the last of those. The local government talks of attracting 200m tourists in 2023. It has dispatched Uyghur influencers to promote the region. In January a delegation of religious leaders from 14 Islamic countries toured Xinjiang and praised its "major achievements" in counter-terrorism and deradicalisation, according to China's foreign ministry.

European leaders are more difficult to impress. In 2021 the European Union imposed sanctions on several Chinese officials over the persecution of Uyghurs. China struck back, placing sanctions on a range of European politicians, diplomats and scholars. The European Parliament then refused to ratify an agreement on bilateral investment that had been reached between China and the EU in 2020. But now Fu Cong, China's ambassador to the

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EU, wants to "let bygones be bygones". He is calling for revival of the investment agreement and the simultaneous lifting of sanctions. "We don't want to go back to the history of who was right and who was wrong in imposing sanctions, because that would be a futile debate," Mr Fu said earlier this year. "We need to look ahead."

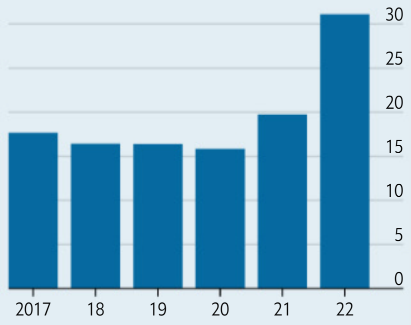
China appeared to be making progress in February, when it was announced that Erkin Tuniyaz, the governor of Xinjiang, would meet officials in London and Brussels. But that trip was called off after activists and politicians called for Mr Tuniyaz to be detained on his arrival in London. Around the same time a long-delayed dialogue on human rights between China and the EU resumed. European officials say these meetings give them a chance to confront their Chinese counterparts. Activists say they impose no real costs on China, while giving leaders on both sides cover to strengthen business ties.

The activists have a point. Exports from Xinjiang to the EU increased by a third in 2022 compared with the year before. Xinjiang's total exports have nearly doubled in the past two years (see chart), with much going to neighbouring Kazakhstan and Kyrgyzstan. That has come even as trade with America has fallen off a cliff because of the Uyghur Forced Labour Prevention Act, which bans imports from Xinjiang unless there is clear evidence that they were produced without forced labour.

However, it is not just people in countries such as Kazakhstan and Kyrgyzstan who are moving on. In a commercial district of Istanbul, a Uyghur businessman says he has been cut off from his family in China and that his son was detained for several years. Still, he refuses to criticise the Chinese government. Xi Jinping needs to secure China's borders, he says. And he needs to maintain good relations with his Chinese partners. He is reluctant to discuss the future of his homeland. "I don't think about these big questions," he says. "I focus only on raising my children. Maybe one day we can go home." ■

Selling out

China, Xinjiang goods exports, $bn



Source: GACC

China, the UN and human rights

Freedoms and failures

GENEVA

China may face more embarrassment over its human-rights record

ON PAPER, CHINESE diplomacy was victorious. Last October the UN's Human Rights Council (HRC) voted by 19 to 17 against holding a debate on a long-delayed report which concluded that China may have committed "crimes against humanity" by mistreating Uyghurs in Xinjiang. The Chinese delegation expended extraordinary energy in seeking to persuade HRC members to vote against the resolution, which would merely have triggered a discussion in the council lasting a few hours.

China was determined to avoid what, in its eyes, would have been a humiliation. President Xi Jinping himself was said to have telephoned several of his counterparts to ensure that their representatives in Geneva voted the Chinese way. His chief delegate in the city "literally camped at the gates" of the residence of the wavering Mexican ambassador in order to badger him on the day of the vote, says a Western diplomat. Sure enough, Mexico limply abstained, along with Brazil and India.

But that is not the end of the matter. Western diplomats and human-rights campaigners argue (optimistically) that failures by China to get its way in other international forums presage an erosion of its influence in the human-rights arena. The closeness of the HRC vote was "a massive step forward", says a seasoned rights monitor. "It was the first time China had ever been directly tackled in the HRC."

Human Rights Watch, a monitor, has tracked a gradual increase in the number of countries willing to name China in the HRC and other forums, where "country-specific" criticism has habitually been frowned upon, especially by the many countries who fear their own records may be put in the spotlight if naming and shaming becomes the norm. In 2016 only a dozen countries signed a letter written by the American ambassador to the HRC's president, complaining about China's human-rights abuses. In 2020 a similar German-led statement in the UN General Assembly launched with 39 signatories; one last year got 50. Not a huge tally, but a clear trend.

The HRC is an odd body. Nobody pretends that its 47 members, which include Cuba, Eritrea, Pakistan and Uzbekistan, as well as China, are chosen for their spotless records. Members are elected for three years in five regional groups on pre-cooked lists (ie, if there are five vacancies there will be only five candidates). A few years ago Somalia got more votes than Denmark.

Even in this questionable company China has been losing ground. When it was elected in 2016, it won the most votes in its group. In 2020, when it was re-elected, it won the least. Once back on the council, it fought hard to ensure that its preferred candidate became president. But it failed to prevent a Fijian, who genuinely believed in promoting human rights, from being elected instead.

China is finding it harder to win leadership posts across the UN's many agencies. A recent report by the Lowy Institute, a think-tank in Australia, says that China's efforts "whether in terms of funding, staffing, voting alignment or drafting of UN language, often yield mixed results." A Singaporean easily defeated a Chinese candidate to head the World Intellectual Property Organisation in 2020. A few months ago an American woman thrashed a Chinese-backed Russian to become head of the International Telecommunications Union.

China and Russia both aim to redefine the terms of human rights, tilting them away from individual freedoms towards an emphasis on social and economic progress. In the run-up to the 75th anniversary in December of the universal declaration of human rights, they have encouraged talk of junking the Western-led liberal consensus that has prevailed, more or less, since the end of the second world war.

They were both keen to prevent a much-discussed UN convention on crimes against humanity, which would technically be binding. But at the end of last year a medley of countries led by Bangladesh, the Gambia and Mexico infuriated China and Russia by paving the way towards one in a committee of the UN—and gathering an unstoppable wave of support in the General Assembly. A recent article in *Foreign Policy* magazine sums it up, bleakly from China's point of view: "Moscow and Beijing got outfoxed. And they knew it." ■

The origins of covid-19

Furry animals, deadly virus

BEIJING

China has not done enough to halt the trade in wild animals

On March 20th a team of scientists from around the world provided the latest twist in the debate over the origins of covid-19. A working paper they published online confirms, using genetic evidence, that animals such as dogs, weasels, foxes and hedgehogs were present at the seafood market in Wuhan whose customers and stallholders were among the first people in China to fall ill. In some ways that is unsurprising—yet for a long time China's government denied that such wildlife markets even existed. It was not until 2021 that a paper by Chinese scientists reported they had seen animals for sale there.

The latest research draws on data collected in early 2020, when the Chinese Centres for Disease Control swabbed surfaces in the market after it was shut down. Notably, the research finds that the animals kept there included raccoon dogs—which would have had the potential to transmit the virus to humans. The theory, then, is that animals transported to the market from outside the city might have triggered the pandemic. For China, this line of thought is probably preferable to an opposing theory that covid could have leaked from a nearby virology lab. Yet a market origin would hardly clear the Communist Party of blame.

Markets such as the one in Wuhan were greatly shrunk in the aftermath of a previous plague—the deadly SARS outbreak of 2003 which was tied to wildlife trading of just this sort. Back then, scientists inside and outside China warned of the need to keep humans away from wild animals. "Operation Green Sword" seized 30,000 exotic animals from markets and restaurants in Guangdong, the southern province that had been at the centre of that disaster. A national campaign, "Operation Spring Thunder", subsequently turned up some 900,000 more.

Yet individuals and companies who benefited from the wildlife trade resisted the curbs fiercely. Within months restrictions had been relaxed; business soon bounced back. By 2010 Zhong Nanshan, a doctor who became a hero during the SARS crisis, was warning a session of China's rubber-stamp parliament that the wildlife trade's resurgence was increasing the risk of a new disaster. In 2017 annual revenue in China from exotic creatures reached 520bn yuan ($76bn), according to Peter Li at the University of Houston-Downtown in America. That money is made not only from selling animals for their meat but also for fur, for traditional medicine and to be put on display.

Since 2020 the government has once again stepped up efforts to solve the problem. That year Xi Jinping, China's president, said that eating wildlife "without limits" was a "bad habit" that had to be junked. China has imposed a fresh ban on consuming exotic animals. But Mr Li, noting that trading creatures for other reasons is still allowed, wonders how long even that prohibition will last. He says the wildlife industry retains powerful influence within the government.

The argument that a leaky laboratory may have been responsible for unleashing covid on the world has benefited traders of exotic animals. They see a chance to avoid blame for a pandemic that has killed millions. But evidence in favour of either of these theories leaves China's government with a lot to answer for. ■

Panda diplomacy

Bring our bears home

Chinese nationalists are up in arms over the treatment of pandas

Le Le means "happy happy", but the giant panda known by that name appeared to be in a sad state. Last year animal advocates accused the Memphis Zoo in America of neglecting the bear and his female companion, Ya Ya. In February Le Le died, apparently of heart disease. Now Ya Ya (meaning "cute girl") is looking less adorable. She has been losing clumps of hair, raising concerns about her health.

It is not just animal lovers who are distressed. The bears are on loan from China, part of the country's "panda diplomacy". Chinese nationalists allege mistreatment fuelled by anti-Chinese sentiment in America. "When even giant pandas are affected, it shows China-US relations are really bad," said the *Global Times*, a nationalist tabloid.

An online campaign has been launched in China to bring Ya Ya back home. Giant photos of the sick-looking bear have been placed on billboards (see picture). Chinese living abroad visit her and post updates on her condition. Others are checking up on pandas hosted by other zoos in America and elsewhere. Russia has been praised for its first-class treatment of two pandas at Moscow Zoo.

Chinese officials often fan nationalist anger. In this case they have called for calm. Diplomats stationed in America visited the Memphis Zoo and "confirmed that the giant pandas have been cared for", according to official reports. Ya Ya, 22, is old and suffering from a skin condition, explained the Chinese Association of Zoological Gardens, which arranges panda loans.

Panda diplomacy is a boon for China. Zoos pay up to $1m a year to rent a bear (extra if a rare cub is born). The animals highlight China's fairly successful conservation efforts—the species was reclassified as "vulnerable", up from "endangered", in 2016. And, say critics, the pandas make an authoritarian state seem cuddly. Around 20 countries are currently hosting the bears.

Ya Ya is expected to return to China in April, when her loan agreement expires. But the affair has left some in China questioning the practice of panda diplomacy. "It should be reduced," says a visitor to the Beijing Zoo who has been raising awareness by carrying a tote bag with Ya Ya's picture on it. Pandas come from China, she says, but they do not belong to it.

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Chaguan | China's cheapest city

Pressures of modern life explain why some are moving to a sleepy ex-mining town

Central planners have long shaped Hegang, a city in China's far north. Once, coal and other minerals made Hegang a pillar of socialist industry. When the richest seams were declared exhausted, just over a decade ago, the central government closed many mines and put its faith in green infrastructure. Shantytowns of soot-blackened miners' huts were demolished and replaced with brightly painted apartment blocks, marching to the horizon beside new city parks. A high-speed rail line opened last December. There is proud talk of a graphite mine that will supply factories making batteries for new-energy vehicles. Alas for the technocrats, they could not prevent more than one in six locals leaving Hegang after 2010, fleeing low salaries, limited job prospects (especially for graduates) and long, dark, brutal winters.

Recently, that combination of a home-building drive and a shrinking population has propelled Hegang to an unforeseen distinction. It is by some measures China's cheapest city at prefecture-level or above. In 2019 Hegang earned online notoriety after young outsiders made viral videos and blog posts boasting of buying sizeable apartments there for as little as 46,000 yuan ($6,700). The claim is supported by more formal surveys. Hegang's second-hand housing stock sells for 2,152 yuan per square metre on average, making property 40 times cheaper than in Shenzhen, a high-tech southern metropolis.

This backwater of 790,000 people near the Russian border has now become an online byword for a place where strivers—as well as have-nots and misfits—can turn modest savings into a home. True, many give up and leave within months, often as winter temperatures plunge to -20°C. Others visit only briefly to decorate apartments bought online, before returning to lives in a factory dormitory as migrant workers in a giant eastern city. But even that remote form of ownership is "a form of emotional comfort" for migrants, who may spend years in Shanghai or Guangzhou but have no hope of buying homes there, says Liang Yunpeng, a Hegang estate agent. He sells perhaps 80 cheap flats a year to outsiders, typically on the upper floors of old buildings without lifts. His customers often have less than 30,000 yuan to spend.

It would be rash to predict Hegang's revival by incomers. Several successful new residents supplement local jobs by creating short online videos and posts that play on the novelty of their move to China's far north, earning millions of views for films about the cold or the cheapness of eating out. Only a limited number can become famous online for living in Hegang.

Still, this small city is a good place to observe a large trend. China faces a cost-of-living crisis. Between 1998 and 2021 urban Chinese homes became four times less affordable, as judged by the ratio of average housing prices to median disposable incomes. Today a flat in Beijing measuring 100 square metres costs, on average, 6.3m yuan, or about a million dollars. That is 34 times the average annual salary in China's capital. Unattainable housing is especially painful because property is seen as a safe, government-backed form of savings, and because a man without his own apartment will often struggle to find a wife. It also exposes deep inequities in modern society. Some involve yawning income inequality. But others reflect encrusted privilege from the socialist era, notably after urban housing was privatised in the 1990s and sold off to state-employed workers and officials at steep discounts.

Visiting Hegang, Chaguan meets the owner of a small burger bar, surnamed Hou. He is locally born, and returned from Beijing in 2020 when the covid-19 pandemic halted his work as a guide taking Chinese tourists to Russia. Such holidays are not cheap: a family trip to Moscow might cost 30,000 yuan. Still, many of his clients were seemingly ordinary pensioners. The explanation is that long-time Beijingers might own two or three apartments, bought cheaply years ago. Now even a small flat can generate 60,000 yuan a year in rental income. In contrast, Mr Hou has noticed more Hegang friends heading home, after realising that—as migrant outsiders to a big city—they will never have enough capital to buy a home or start a business. He is glad to hear more customers or delivery-scooter riders with non-local accents, too. For one thing, such newcomers prop up Hegang housing prices.

Some locals resent Chinese bloggers who call the city a haven for those yearning to "lie flat", or drop out and abandon material ambitions. Wang Dakai, who spent ten years in big cities before returning to open a barber's shop, worries that Hegang is being called lazy. "None of us is lying flat, everyone is hustling," he says. Proving his point, as his price for answering questions he asks to film an online video pretending to cut his British visitor's hair to post on his social-media channels.

Individual dreams in a bastion of old collectivism

Some fresh starts are life-changing. Buying and renovating a flat for 70,000 yuan last summer allowed a 25-year-old vlogger who uses the name "Hua Hua" to make a home for herself and her ten-year-old sister. Each month she sends money to pay for her mentally impaired mother's care at home in Jiangxi province, 3,000km to the south. She supports herself by selling pancakes and bean jelly from a street cart, housesitting cats, working as an online customer-service assistant and writing. Hegang is quiet and friendly, and has some good schools from its days as a mining centre, she says. Also, she likes snow. On a recent morning she was joined in her tiny, cat-filled home by a newly arrived friend, a divorced single mother. The friend has noticed that many arrivals have strained relations with families, as she does.

No central planner set out to make Hegang a city where young women can enjoy rare autonomy, without a husband or relatives to control them. This cheap ex-mining town is best understood as an accidental safety-valve. Its startling fame reveals that Chinese society is a system under terrible pressure. ■

The Shia crescent

No longer shining so bright

BAGHDAD, BEIRUT AND NAJAF

After decades of expansion, Shia Islam is on the wane

Visiting Iraq’s latest grand shrine in what is said to be the world’s largest cemetery, in the holy city of Najaf, has become something of a pilgrimage for people from across the region wanting to salute two of Shia Islam’s modern heroes. One is Qassem Suleimani, the long-serving commander of the Quds force, the foreign arm of Iran’s Islamic Revolutionary Guard Corps (IRGC); the other is Abu Mahdi al-Muhandis, the commander of the beefiest umbrella group of Shia militias in Iraq, whose grave is at the shrine. (Suleimani is buried in southern Iran.) Both were killed three years ago in Baghdad by an American drone strike aimed at Suleimani, whose job was to protect and spread the Shia revolution across the region.

Busloads of fellow Shias—from Lebanon and Bahrain as well as Iraq and Iran—come to the shrine to hail the pair for carving out a Shia domain that gave their sect, which caters for about 15% of Muslims across the world, a rare moment of triumph across the region. “Never again will we be the shoe-shiners and street-sweepers of the Middle East,” says a militiaman from Lebanon, referring to the centuries of domination by Sunni Muslims like those who still reign over Egypt, Saudi Arabia, Turkey and beyond.

Were it not for America’s invasion of Iraq 20 years ago, the Shia resurgence might never have happened. Iran’s Islamic revolution in 1979 launched the project to elevate the region’s minority. But the dismantling of Saddam Hussein’s Sunni-led regime heralded its spread, replacing it with a government system that put Iraq’s Shia majority in charge. Uprisings in the Arab spring of 2011 shook the region’s Sunni order still more, creating power vacuums that Iran often sought to fill.

Under Iran’s baton, Shia militiamen poured into Syria from as far afield as Afghanistan and Pakistan. In Lebanon a Shia political movement-cum-militia, Hizbullah, became the country’s dominant force. In Yemen a Shia revivalist militia under the Houthi banner swept into Sana’a, the capital. From north, south and east Shia militias launched their drones at Saudi Arabia, the bastion of Sunni Islam, striking its royal palaces in the capital, Riyadh, and briefly incapacitating half of the kingdom’s oil supply. In 2004 King Abdullah of Jordan lamented that a new “Shia crescent” was endangering the old Sunni world.

Shia clerics trained in Iran’s religious capital, Qom, led Lebanon’s Hizbullah, much of Yemen, three of Iraq’s six main Shia parties, as well as Iran itself. Their main shrines in the Iraqi cities of Najaf and Karbala attract more pilgrims than Mecca in Saudi Arabia. They have routed the Sunni jihadists who created the caliphate that straddled eastern Syria and north-western Iraq. And they have gathered a vast arsenal, with an estimated 150,000 missiles pointing at Israel alone. Shia Iran has realised its age-old dream of reaching the Mediterra-

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nean by land and more recently air, through Iraq and Syria and on to Lebanon.

But the Shia moment may have passed. Iran's regime is in trouble, facing opposition on the street and from within its dithering, ageing ruling circle. Iraq (see next article) is mired in corruption, periodic violence and misgovernment. Succession crises are brewing in both. "There's a realisation that the Islamic order is reaching a dead end," says Ali Taher, who runs Bayan Centre, a think-tank in Baghdad.

One reason is that the clerics have been bad at managing economies. Incomes have plummeted, currencies have crashed and inflation has soared across the Shia crescent. Lebanon's pound is the world's worst-performing currency this year. The Syrian pound has fallen from 47 to the dollar before the Arab spring in 2011 to 7,550 this year. Iran's economy has struggled since America walked away from a nuclear deal in 2018 that had eased sanctions in exchange for curbs on Iran's uranium enrichment (see Briefing). Its currency has since slumped from about 45,000 rials per dollar to a low of about 580,000. (Before the revolution in 1979 a dollar would buy 70 rials.)

From crescent to moonshine

Iraq should have bucked the trend. Alone among Shia states it retained its ties to the global economy under American tutelage. But its power-brokers squandered its oil wealth. Across the wider region Shia militia leaders have exploited the black economy, overseeing smuggling rings and the mass production of recreational drugs. Even in Lebanon, once the leading banking centre of the Middle East, Shia leaders have shared in the catastrophic mismanagement of the economy.

Democracy in Iran, the self-proclaimed beacon of Shia governance, has shrivelled, even within the tight confines of clerical rule. Turnout in Iran's election in 2021 was the lowest since 1979. In Iraq, among Shias, it has fallen from 80% after the fall of Saddam Hussein by more than half to perhaps 20% in 2021, when independent candidates topped the poll. In the southern districts of Beirut, Lebanon's capital, support for Hizbullah, which still dominates the area, is said to be dwindling.

The declining popularity of Shia Islam is most noticeable in Iran. Mass protests used to erupt roughly once a decade. Since 2017 they have burst forth every few years and have spread from the main cities to provincial towns. They now embrace working-class Iranians, long considered the regime's base, as well as students and the middle class. A recent poll suggested that more than 80% of Iranians approve of the current protests.

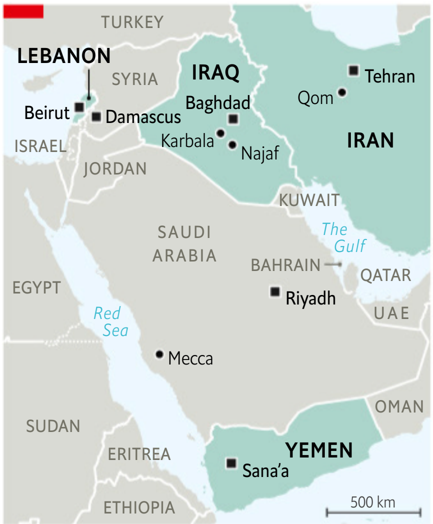
As disaffection grows, many Shias are losing faith, not just in the ayatollahs' ideology but in religion itself. *Taqlid*, the practice of strict obedience to the ayatollahs, is weakening. Women, in particular, want to shed religious dress codes and clerical patriarchy. Many are increasingly discarding the veil, once hailed by Ayatollah Ruhollah Khomeini, the regime's founder, as "the flag" of the Islamic Republic.

In Iraq, too, protesters have begun turning on the clerics whose fatwas endorsed the political system. "In the name of religion, we have been robbed by the thieves," one banner recently declared. In some mosques in Baghdad's middle-class neighbourhoods, clerics have abandoned their Friday sermons because they no longer draw crowds. Surveys suggest that, though most Iraqi Shias still respect their ayatollahs, they no longer obey them blindly, especially in matters of personal observance.

Iran's supreme leader, Ayatollah Ali Khamenei, is 83 and ailing. His succession is shrouded in doubt. None of the front-runners seems likely to revive the regime's fortunes. Ebrahim Raisi, Iran's turbaned president, is lampooned by fellow clerics for his lack of religious qualifications. Mr Khamenei's son, Mojtaba, has sought them by teaching in Qom. But his nomination would smack of the dynastic rule that Iran's revolution cast aside.

The choice is limited because Mr Khamenei long ago silenced Muhammad Khatami, a former president who has called for a "fundamental transformation" of the system. Another former occupant of that post, Akbar Hashemi Rafsanjani, was hounded out before his death. Mir Hossein Mousavi, a former presidential candidate who spent 13 years under house arrest, recently called for a referendum on whether Iran should remain an Islamic republic.

Some insiders suggest that the commander of the IRGC, Hossein Salami, may try to grab power if the clerics are unable to hold the country together. The corps might even offer a "new social contract", speculates a political analyst in Tehran. The IRGC already dominates Iran's armed forces, the parliament, the intelligence services and perhaps 40% of the economy, so a coup is far from unthinkable. "We're living in suspended animation between one era and the next," says a university lecturer.



Should the IRGC seize the reins, says a government adviser, it would ditch the clerics' isolationism and reach out to the West". It could accommodate Iran's prosperous business class and even its vocal diaspora that has long been at odds with the ayatollahs. The IRGC might even drop, or reduce, Iran's support for its allies abroad, such as in Syria, Lebanon and Yemen. And it could build on Mr Khamenei's recent decision to re-establish relations with the republic's bitterest Sunni rival, Saudi Arabia.

Long beards, long faces

Iraq is facing its own clerical succession crisis. This is less overtly political, because Iraq's electoral system is not under the thumb of theocrats in the same way that Iran's is. And Iraqi clerics tend to hold back from direct rule, preferring to nudge their candidates from the sidelines, though some, such as Moqtada al-Sadr, a populist cleric, have led from the front.

Even so, politicians have generally sought the blessing of clerics such as Ali al-Sistani, Iraq's 92-year-old chief ayatollah. When the Sunni jihadists of Islamic State were threatening to take over the whole country in 2013, Mr Sistani called all Shias to arms. But more recently he has withdrawn from the political scene, and no clear successor has emerged. "The age of the *marja* is ending," says a Shia commentator, referring to the font of Shia religious authority. Mr Sadr may harbour ambitions to replace Mr Sistani as the leading light among Iraqi clerics, but an array of other Shia leaders are fiercely against him.

In any case, since America assassinated Suleimani and Muhandis in 2020, Iran has struggled to stop its satellites from breaking away. "They're asking why we should be agents of Iran," says an analyst in Beirut close to Hizbullah's leadership, when asked why Hizbullah had agreed to last year's maritime deal with Israel mediated by America. President Bashar al-Assad of Syria is also doing his own thing. He has recently been welcomed with honours in the United Arab Emirates, visited Oman and received Egypt's foreign minister. Despite its close affiliation to Iran, Iraq's latest government may have nettled Iran's rulers by becoming friendlier with Sunni-led states in the Gulf.

Iran and Iraq still make a powerful pair of Shia states. But they are both in a mess. They and their allies in the region are beginning to hedge their bets. Across the Sunni world, King Abdullah's striking phrase no longer feels so aptly fearful. ■

Iraq's past 20 years

Is the long trauma over?

BAGHDAD

Baghdad is more or less peaceful, but corruption and misgovernment prevail

After two decades of rampant violence and political dysfunction, Iraq is at last showing signs of recovery. Most of the concrete blast walls that sliced up cities have come down. Baghdad, the capital, is reviving, towered over by a new central bank. The road to the airport, once dubbed the world's most dangerous because of the snipers along the way, is lined with private universities and housing estates. "Before, we had to clear roads of landmines," says the head of a paramilitary engineering unit. "Now we clear people's sewage."

Though politics is still messy and corrupt, with parliament and government subject to bitter horse-trading between parties in hock to sectarian militias, a measure of representative democracy has been achieved. The Shia majority, suppressed under the vicious Sunni-led dictatorship of Saddam Hussein, is sitting pretty, its leaders content to reap the rewards of power and patronage. The application of religious laws has softened. Unveiled women again walk the streets.

A main reason for this return to relative normality is that violence has largely abated. Last year about 60 people were killed every month, according to Iraq Body Count, a British-based monitor, whereas at the height of the sectarian civil war in the years that followed the American invasion of 2003, the toll often exceeded a hundred a day, with suicide-bombings sometimes killing whole crowds in markets. The last big bomb in Baghdad was over a year ago.

Yet the trauma of the past two decades cannot easily be wiped away. At least 270,000 Iraqis, more than half of them civilians, perished violently in that period, as well as 8,000-plus American service people and contractors, according to a monitoring project at Brown University in America. Mosul, the country's third city and heart of the Sunni north, was ruined as the central government recaptured it from the Sunni jihadists whose caliphate oversaw a reign of terror over much of the north and west in 2014-17.

Many of Iraq's ancient minorities, notably the Christians, have been chased abroad or into the Kurds' autonomous haven in the north. Under the caliphate thousands of Yazidis, adherents of a sect in northern Iraq that draws from elements of Christianity and Islam, suffered what nearly amounted to genocide.

What came next was messier

Only the Kurds can claim a more or less unbroken period of progress and calm as a result of the American invasion. Protected initially by American force and by their own militias, their autonomous region has been far less affected by the violence that shattered the rest of the country. Their government in Erbil continued to function while the rest of Iraq fell into bloodshed and chaos. But the Kurds' bid for complete independence looks unlikely to succeed; in 2017 forces under the aegis of the government in Baghdad recaptured a chunk of territory the Kurds had occupied, including the oilfields of Kirkuk.

Ordinary Iraqis have yet to benefit from the oil wealth of the country, the world's fifth-biggest producer. Some 25% of the population have incomes below the national poverty line, the government says. This is because billions of dollars from oil revenues have been lost to corruption, leaving public services overwhelmed even as Iraq's population has soared, from 27m in 2003 to 44m at last guess. A third of young Iraqis have no jobs. Schools are dilapidated. Electricity is as patchy as it was after America invaded.

The failures of Iraq's government are making the democracy promised by America look increasingly threadbare. Elections are held on time but are manipulated by militia bosses. Turnout has steadily declined. Freedom of speech, a big bonus of Saddam Hussein's removal, is declining. Journalists who criticise the militias may be killed. Protesters who take to the streets are liable to be met with guns.

Yet the younger generation, for whom the American invasion is a distant memory, has not given up hope. In late 2019 mass protests unseated a prime minister and called for better services and an end to corruption. The protesters were brutally repressed. But their thirst for a decent government and a decent society cannot be denied for ever. ■

Ugandan politics

Not now, son

KAMPALA

Yoweri Museveni controls the country. But can he control his son?

Many fathers have complicated relationships with their sons. But when a family controls the state, personal matters become a national concern. Uganda's president, Yoweri Museveni, has long cultivated General Muhoozi Kainerugaba, his eldest, promoting him in the army and forgiving his tempestuous moods. And now the son thinks it is his turn at the top. The result is friction in the army, chaos in the ruling party and confusion in the country.

General Kainerugaba says he is "tired of waiting" to be president. Twice in recent weeks he has tweeted, then deleted, his intention to stand at the next election, in 2026. By then, he has noted pointedly, "it will be 40 years of the old generation in charge". Forty years, that is, since his own father marched into Kampala at the head of a rebel army. Mr Museveni, who is 78, may indeed want his son to succeed him when he dies. But he is not going anywhere yet.

And so the 48-year-old General Kainerugaba, who styles himself as the voice of youth, throws tantrums on Twitter. In October he joked about invading Kenya, prompting his father to sack him from his position as commander of the Ugandan land forces. In December he lashed out at the ruling National Resistance Movement (NRM), the party that Mr Museveni founded and leads. It is "probably the most reactionary organisation in the country", he tweeted, and "certainly does NOT represent the people of Uganda". He often tweets after a tipple, say insiders.

Uneasy lies the head that wants the crown

The son's impatience echoes that of other middle-aged members of the ruling elite, who find their path blocked by obdurate elders. They see the regime's authority slipping and fear there will be little left for them to inherit. The old guard is pushing back. General Kainerugaba's clique are "children" who have been "shepherded", says Kahinda Otafiire, the 72-year-old interior minister, who fought alongside Mr Museveni in the bush. "Were they to face the challenges we faced, when they are not prepared, will they manage to hold the country together?"

The agitation of General Kainerugaba also touches the most sensitive issue in Ugandan politics: relations with neighbouring Rwanda. He has made several visits to Kigali to hobnob with President Paul Kagame, whom he calls "uncle", and has declared his sympathies with his "brothers" in M23, a Rwanda-backed rebel outfit in eastern Congo. That unsettles other officers who are deeply distrustful of Rwanda's intentions. But the first son refers to the Ugandan forces as "my army" and shows no inclination to be bound by its rules.

Tensions came to a head last June when M23 captured the Congolese border town of Bunagana with the acquiescence of Ugandan soldiers, who let the rebels move through Ugandan territory. Two weeks later the deputy military chief put the army on its highest state of alert. General Kainerugaba issued his own countermanding order. Other generals berated him for insubordination. One of his close associates, who would discuss the matter only anonymously, claims the first son disobeyed orders because he thought a coup was afoot.

Anyone else who behaved in this fashion would be court-martialled. But General Kainerugaba shows no signs of pulling back. He has said that those organising for his father's re-election are "gangsters, criminals and disasters". He is now holding rallies to promote the "MK Movement", named after himself. It stands for little except his own ego.

Such are the symptoms of political decay. Over his four decades in power, Mr Museveni's trust has narrowed in concentric circles: first to his own region, then to his ethnic group, then to his family. Debates about the future of the nation are now reduced to whispers about palace politics. While he is healthy, the president holds all the cards. It remains unlikely that any of the jostling factions in the army would move against him. But it is no longer unthinkable.

Why then does Mr Museveni not pull his son into line? Some say he sees the kerfuffle as a convenient distraction from his never-ending rule; others say that he cannot bear to crush his own. It would not matter so much, had he not gathered all power in his own hands. ■

HIV in Africa

Breaking the cycle

JOHANNESBURG

Drugs to protect girls from catching HIV may curb the epidemic

When Lesedi was growing up in Johannesburg, South Africa's commercial capital, her family was so poor that she used a cloth filled with sand as a makeshift sanitary product. That changed when, at the age of 14 (which is below the legal age of consent), she began having sex with a man nearly 15 years older who gave her rides to school and bought her toiletries. The boyfriends who followed in her teenage years and early twenties were increasingly generous. "If I were to date you, you had to make sure that you're working first," says Lesedi (whose name we have changed). "Love alone can't give me food." One married man paid for her apartment and outfits, and gave her money to support her family. She got everything she wanted, says Lesedi, until she found out that she was infected with HIV.

Relationships between adolescent girls or young women and older men are a big cause of new HIV infections globally. Eastern and southern Africa have about a tenth of the world's population, yet accounted for nearly half of the world's 1.5m new HIV cases in 2021. And young women (aged 15-24) are disproportionately affected, with infection rates more than three times higher than in their male peers (see chart on next page). Like Lesedi, many of these girls and women have become infected while dating a succession of older men. A few years later many pass it on when they meet someone closer to their own age with whom they wish to settle down. "This is when HIV is transmitted to this young man, who then becomes the older man,“ says Linda-Gail Bekker of the Desmond Tutu HIV Centre at the University of Cape Town. "So you have the vicious HIV cycle."

Breaking this cycle is one of the biggest challenges in public health. Efforts to change the behaviour of young women and older men are seldom successful. Instead, the solution may be pharmacological, in the form of pre-exposure prophylactic (PrEP) drugs that healthy people take to avoid contracting HIV. New and highly effective PrEP regimens for women are becoming available or are in late-stage development. If they become widely used by girls and women having sex with older men, Africa's HIV epidemic will take a sharp turn down.

Explaining the age gap

Relationships with sugar daddies (which wonks prefer to call "transactional sexual relationships") are different from sex work. Some women talk about being romanced by older men and getting emotional support from them that they might not get from men their own age. Girls in South Africa often start having sex at the age of 14 or 15 when, puberty-wise, they are more sexually mature than their male peers, says Dr Bekker. Some start relationships with slightly older men as part of discovering their sexuality, flattered that they are so attractive to them. Research in South Africa has found that the man is usually

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1. Circular economy as defined by Ellen MacArthur Foundation. (2022). ***Circular Economy Introduction.*** Source: ellenmacarthurfoundation.org.
2. Marsh, J. (2021, May 3). ***Food Packaging Waste Statistics: Understanding the Rise of Food Packaging Waste.*** Source: Environment.co.

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five to eight years older, though there are also cases like Lesedi's, with a man a generation older.

Attitudes to men in such relationships are encapsulated in what many young Africans call their older male partners: "blessers". Some women boast on social media about their gifts (using #blessed). Having a blesser provides social status as well as trendy clothes, smartphones and other goodies that their parents cannot afford to buy for them, says Joyce Wamoyi of the National Institute for Medical Research in Tanzania. Such gifts are common among university students. In the poorer countryside, by contrast, men provide money for necessities such as food and clothing.

Younger men struggle to compete for the attention of young women because they tend to earn less money than older men. Yet their male elders are much more likely to have HIV, simply because they have been having sex for longer and with more partners in societies with high rates of HIV. Men in their 20s—often the first partners of adolescent girls—are less likely to know they are infected and, therefore, to take antiretroviral drugs (ARVs), which would make them less likely to pass the virus on through sex. A study conducted in 2016 in KwaZulu-Natal, a province in South Africa with a high prevalence of HIV, found that the sexual partners of women younger than 25 were, on average, 8.7 years older. The partners of women who were 25-40 were only a year older. Clusters of related infections identified through HIV genotyping led the researchers to conclude that younger women got infected by older men. Then, as they grew older, they infected men of their own age.

Various programmes aiming to change this have mostly failed. Charities have tried giving poor adolescent girls small amounts of cash to meet their basic needs. But once they have food on the table as a result of such handouts, says Dr Wamoyi, they aspire to have more, such as nicer clothes; and once they have that, they want more expensive things, such as a smartphone. A cash grant programme may give them the equivalent of $10 or $20 every three months. "An older man can give you $20 on the spot," she says.

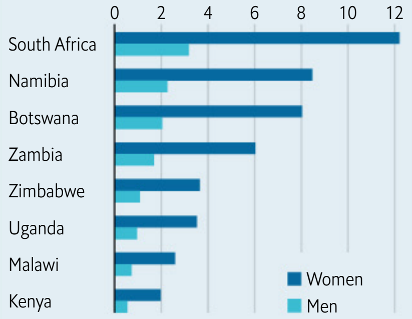
A more promising idea is to prevent girls and young women from becoming infected, ideally using methods which do not require them to persuade a man to wear a condom (which is difficult). Among these are three PREP methods that have become available in recent years: a vaginal ring, a daily pill and an injection every second month. Convincing women at risk of HIV to use them can, however, be a challenge.

The vaginal ring, an insertable silicone device that releases an ARV drug and must be replaced every month, can reduce the risk of HIV infection by as much as 50%. But "it's not going to be everybody's cup of tea," admits Dr Bekker.

Sex and risk 1

New HIV infections, 15- to 24-year-olds, 2021

Per 1,000 people, selected countries



Source: AIDSinfo

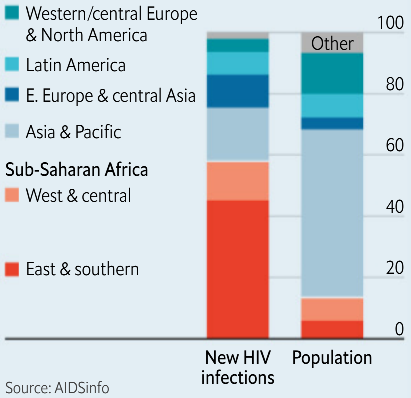
The daily PREP pill, which contains a combination of ARV drugs, has been available in Africa for several years. But it has been tricky to pinpoint how effective it is because even in clinical trials too few women used it consistently. Some studies estimate that, if used properly, these pills can reduce the risk of HIV infection by as much as 90%. But it is hard to take the medication discreetly at work or school and tricky to hide from a parent or a boyfriend.

Women worry about stigma if people think that they are taking the pills because they have HIV. And many people, particularly youngsters, are not very good at remembering to take medication every day, says Dr Bekker. "They have enthusiasm, they get started, but then the persistence falls off quite rapidly," she says. Some also choose to take their pills only around the time they have sex. A study of 427 girls and young women in Africa published in 2019 found that a year after starting this type of prophylaxis only 9% had levels of the drug in their blood that suggested they were still taking it regularly.

The most promising option is an injectable form of PREP. This contains a long-acting form of cabotegravir, which stops an important stage in the replication of HIV in host cells. It is delivered as an injection, initially once a month and then every two months, and was included in the World Health Organisation guidelines on HIV prevention last year. In clinical trials with women in Africa, it was nearly 90% more effective than oral PREP. Regulators in Zimbabwe and South Africa approved it late last year; other African countries are expected to follow.

Africa's scourge 2

World, 2021, % of total



Source: AIDSinfo

Injectable contraceptives are already the most popular type of birth control in Africa, so women in the region may take to injectable PREP more easily than the vaginal ring or the pills. And more convenient versions of it are in clinical trials. Lenocaprivir, which is injected every six months, is in late-stage trials. Unlike cabotegravir, which is an intramuscular jab, lenocaprivir is a subcutaneous injection. This means it can be administered by community health workers, rather than nurses, or even self-administered. Its timing will also align with the most popular injectable contraceptives, which are taken every three months. Women going to a family-planning clinic could get their HIV shot, too, "and nobody would ever know about it," says Nina Russell of the Bill & Melinda Gates Foundation, a charity.

The impact could be large. Modelling published earlier this year in the *Lancet* found that the introduction of injectable cabotegravir in sub-Saharan African could almost double uptake of PREP to 46% of those who need it, from about 28% if it were not introduced. The authors reckon that this would avert 29% of new HIV infections over 20 years and bring cases within a whisker of the HIV-elimination threshold of one new infection per 1,000 people.

Much will depend on the cost of injectable PREP. The *Lancet* study estimates that cabotegravir would be cost-effective at about $60 for a year's supply, which is almost the same as the cost of oral PREP. Viiv, the company that makes the drug, says it will offer it at a non-profit price to public programmes in sub-Saharan Africa until a generic version is available, though it has yet to reveal the price (it charges $22,000 for it in America). It has signed a deal with the Medicines Patent Pool, a UN-backed organisation that promotes the manufacture of generic versions of patented drugs for poor countries. But setting up production in a low-cost factory, perhaps in India or Africa, will take time. Meanwhile, African countries will need aid organisations to help pay for the new drug.

It may be a while before long-acting PREP drugs are widely available in Africa. But they are coming. And with them, eventually, the hope of ending the HIV epidemic on the continent. ■

The
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SPECIAL REPORT:
Video games

→ March 25th 2023

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Ready, player four billion

As video games move from teenage distraction to universal pastime they are following the same path as other mass media, says Tom Wainwright

Games have become a daily habit for Trichur Rukmani. Sometimes she taps away for ten minutes, but other times she plays for longer. "I do it when I am free from other things," she says. The main draw is the excitement of competing, but gaming is also a social experience. Online, from her home in Bangalore, she shares her scores with family members on the other side of the world.

Teenagers have spent pocket money on video games for decades. But the business has changed, and Ms Rukmani shows how. Her gaming rig is not a Japanese console but a mobile phone and tablet, with operating systems made by two American firms, Google and Apple. Her favourite game, "Wordle", is free to play, and owned not by a game publisher but by the *New York Times*. Like over half the world's gamers, she lives in Asia. And at 92, Ms Rukmani is older than the archetypal player—though younger than the other gamer in the household, her 93-year-old husband.

Last year some 3.2bn people played video games, about four in ten people worldwide. The number has risen by about 100m a year, with a big jump during covid lockdowns in 2020. In rich countries two-thirds of people play, nearly half of them women. And though gaming is disproportionately a young person's hobby (nine out of ten British 16- to 24-year-olds play games) older folk are picking up the habit, including half those aged 55-64. Worldwide, there are more console owners aged 35-44 than aged 16-24, says Karol Severin of MIDiA Research, an entertainment advisory firm. As he puts it, gamers are no longer just "young guys covered in crisps".

Gaming's growth has been driven by the spread of the smartphone, which has put a powerful gaming machine in nearly everyone's pocket, giving them access to app stores stocked with thousands of games, mostly free to download (though often expensive to get hooked on). Mobile apps account for about half of consumer spending on digital games. In total the game market will be worth around $185bn this year, according to Omdia, a data company. That figure excludes hardware and accessories, as well as in-game advertising, which is reckoned to be worth an extra $65bn.

As gaming's value has swollen, it has attracted large companies. Seven of the ten most valuable tech firms are active in gaming, and they have brought in tech-sized budgets. Microsoft, which launched the Xbox console in 2001, agreed last year to pay $69bn for Activision Blizzard, a game developer. If it gets past antitrust regulators, this will be one of the largest ever tech deals. Apple and Google are now giants in game distribution, as they control the two main app stores, 60% of whose sales are of games. The online titan Amazon and the chipmaker Nvidia are streaming games on the internet. Tencent, a Chinese media giant, has made gaming central to its business and attracted players far beyond China. Meta has pivoted from social networking to virtual reality, which is used mainly for gaming.

Last year, unusually, consumer spending on gaming fell. Inflation dented households' budgets, and the end of lockdowns let them do other things with their time. Apple's stricter rules on mobile advertising made it harder for games to reach new customers. Supply-chain problems limited the availability of consoles. Yet ▸▸

this year growth should return. Gaming is likely to expand faster than any other broad entertainment category. Its value has already surpassed that of books, music or the cinema. It now vies with television to be the largest media business. Consumers spend more on digital games than on streaming services such as Netflix, and will soon spend more than on pay-TV. Overall television revenues are still greater than those for games, but the gap is narrowing. A poll in 2021 by Deloitte, a consultancy, found that whereas previous generations of Americans picked TV and film as their favourite home entertainment, Generation Z (those under 25) ranked gaming first. “The dominant position that video entertainment has held could be challenged,” Deloitte suggested.

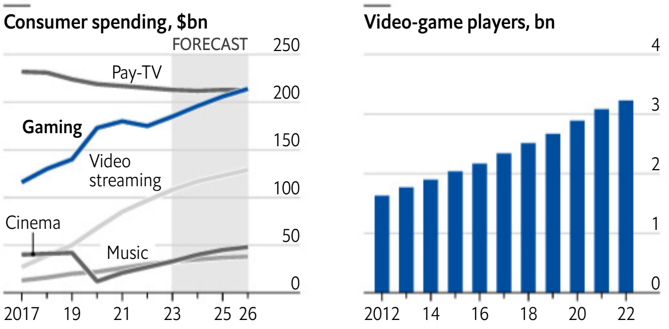
This special report argues that, as gaming evolves into a mass medium comparable to television, its development will mimic other media. Consider distribution, where Hollywood has been upended by a revolution in streaming and subscription models. Companies like Netflix are exploring whether something similar might work in gaming. Or look at changing production. As games become more technically sophisticated, making a smash-hit title starts to resemble making a blockbuster movie, and game studios have to mitigate the risk and cost just as film studios did.

The new champion

Parallels between TV and video games can also be seen in so-called user-generated content. YouTube and TikTok have turned home movies into a multi-billion-dollar industry that steals attention from professional media. Apps such as “Roblox” and “Minecraft” are finding ways to exploit home-made creations in gaming. Online hits like “Fortnite” derive the most fun from interaction with other players. As games rely more on input from other users, developers are grappling with the same content-moderation dilemmas that social networks found when they invited hundreds of millions of people to mix anonymously online.

Just as moving pictures helped shape society in the 20th century, gaming exerts growing influence on the culture of the 21st. The soft power of Hollywood to project norms and ideals is complemented by the cultural influence of games, which are grabbing the imaginations of the young. The difference is that game production is far from the American monopoly that film has long been. China’s growing power is already causing a similar disquiet to TikTok, a video app that many American congressmen want to ban.

From consoles to phones, and from “Fortnite” to “Wordle”, gaming is becoming a true mass medium, with all the social consequences that entails. This report will draw lessons from other media to understand better the development of an emerging industry in which nearly everybody will soon be a player. Ready? ■



Game on
Global

Consumer spending, $bn

Video-game players, bn

Sources: Omdia; Newzoo

Distribution

The new streaming wars

Streaming subscriptions have revolutionised music and television. What will they do to gaming?

IN AN AIRY Los Angeles office with a view of the Hollywood sign, Netflix executives are plotting the next stage of their streaming strategy. The company is the leader in digital streaming of video, with 230m subscribers paying for access to its huge online library of films and TV shows. But now Netflix is looking into whether it could stream something else: video games.

Over the past 15 years the music and TV industries have seen huge changes in digital-media distribution. In 2008 Spotify began offering online access to a catalogue of music for $10 a month. Similar services were offered by Apple and Amazon. Streaming now generates two-thirds of the recorded-music industry’s revenue. Netflix has since done something similar for movies. Most Hollywood studios now have their own streaming platform, selling shows direct to consumers. Streaming accounts for over a quarter of TV viewing in America.

Many wonder if streaming could now disrupt another media industry. Like records or DVDs, video games once came in boxes. Technology now allows them to be streamed over the internet, Spotify-style. And companies are trying out subscription access to game libraries, rather than selling games as one-off purchases. The twin innovations of streaming and subscription could “reshape the competitive landscape” of the gaming industry, says the Competition and Markets Authority, Britain’s antitrust regulator.

Streaming-only services account for less than 1% of games spending, says Ampere Analysis, a research firm. But some are placing bets on it. Microsoft’s Xbox Game Pass Ultimate service lets users stream games to devices ranging from phones to smart-TVs. Sony’s PlayStation Plus Premium offers streaming to its console and to PCs. Nvidia has a game-streaming platform called GEForce Now. Amazon has one called Luna, available only in America. Netflix, which began offering mobile games just over a year ago, says it is “seriously exploring” launching a streaming service.

Streaming games may be more rewarding than streaming music or TV. The most demanding so-called AAA games require users to invest in expensive, often bulky hardware, in the form of a high-end PC or console. Streaming allows a game to be processed in a remote data centre, while its video and audio are relayed to the user’s screen, so the latest games can be played on any internet-connected device. Users can start a game on their TV and pick it up later on their phone or laptop. Removing specialised hardware opens a bigger market. Phil Spencer, chief executive of Microsoft’s gaming division, sees its potential audience as not just 200m households with a console, but 3bn-plus people who play games on any device. In some markets nearly a third of Xbox customers play only by streaming, he says. “We definitely find more and more customers where streaming is the only platform we see them on.”

Yet streaming is a tough business. Google closed its Stadia game-streaming service in January after barely three years. One obstacle is technical. Games’ interactivity makes them less forgiving than video or music over “latency”, or internet speed. Stadia worked well but was not the console replacement that some had expected. “[Google] said, ‘It’s going to be awesome from day one.’ And then that wasn’t true, and I think they turned consumers off as a result,” says Strauss Zelnick, head of Take-Two Interactive, some of whose games were on the platform. Mr Spencer says it is

Many platforms pin hopes on subscriptions to sell games

hard to beat the reliability of a console. He expects Microsoft to be making Xboxes for "years and years".

Even if streaming will not be the main way of distributing games, it could be important. Customers may accept imperfect performance if streaming is a backup when away from home, for instance letting children play games on their grandparents' TV. Many use the technology to sample games that take hours to download but seconds to start streaming. "We see a healthy percentage of people stream games just to try them out before downloading," says Jim Ryan, chief executive of Sony's gaming division. Streaming's real potential may be for games that are more forgiving of the technology's limitations. Netflix, which says it is not trying to build a console replacement, has in mind casual and middling games that are not too latency-dependent.

Buy one, get lots free

Many platforms are pinning hopes on subscriptions to sell games. Most gamers buy titles individually, or play free ones that make money from advertising or in-game purchases of power-ups. But paying a monthly fee to download a whole library of games is slowly becoming more common. Subscriptions represent about 7% of consumer spending on games, says Ampere Analysis. Microsoft, which lags behind Sony and Nintendo in console sales, has built an early lead. Its Game Pass, with some 25m members, had 57% of the market for game-library subscriptions last year, says Ampere. Sony's PlayStation Plus and Apple's Arcade are trying something similar. Some game developers, such as Electronic Arts and Ubisoft, offer subscriptions to their back catalogues.

Games are less ripe for subscription than other media because their consumption is concentrated, says Utsumi Shuji, co-chief operating officer of Sega, a Japanese giant. Mr Utsumi, who was at Warner Music Japan when music moved to subscription, says listening to a song "takes only two to three minutes, whereas when you play a game it's going to take a long time. You don't play 30 games at the same time, but with music you listen to 30 [songs] easily." Mr Zelnick, who before Take-Two was president of 20th Century Fox's film studio, says a household may watch 100 TV shows a month, but play only two or three digital games. "If that's the case, does it really make sense to pay to have access to a couple hundred titles?"

As with music and television, game subscriptions increase people's consumption. Game Pass subscribers "spend more hours, they play more games, they take chances on games from creators that maybe they haven't heard of," says Mr Spencer. He cites the example of "Hi-Fi Rush", a lighthearted game from a developer better known for horror titles, which recently became a hit on Game Pass. Matthew Ball, a media investor, argues that subscriptions allow gamers to do the equivalent of TV channel surfing. "Frictionless discovery is an underacknowledged part of why TV became the dominant medium," he says. Cable consumers have always complained they are paying for channels they don't want, but their consumption has gone up anyway.

As in Hollywood, subscriptions involve trade-offs. Film studios have agonised over whether to give their blockbusters a window of exclusive theatrical release or make them available for streaming on day one, delighting subscribers but cannibalising box-office revenue. Similarly games developers face a dilemma over when to add them to subscription libraries. Sony delays putting games like last year's "God of War Ragnarök" on its PlayStation Plus service until they have had a window as one-off purchases for $70. "For us, a day-and-date approach doesn't work with the massive AAA games developed by PlayStation Studios," says Mr Ryan.

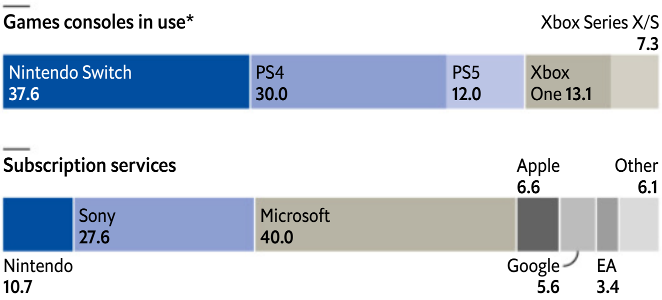
Microsoft, which is pushing its Game Pass, takes the opposite approach, releasing most games immediately to subscribers. "Starfield", a much-hyped title due later this year, will be on Game Pass from day one. The question is "whether they're going to see enough incremental subscriber growth to more than offset what they otherwise would have expected through just direct sales of those games," says Nick Lightle, a media consultant formerly at Spotify. If Microsoft buys Activision Blizzard, it promises to make Activision's bestselling "Call of Duty" series free to Game Pass subscribers—the equivalent of Disney putting a new Star Wars movie straight on Disney+. As Microsoft makes more new titles available, "That's where I think we'll start seeing some pressure on that model," says Mr Lightle. Hollywood studios such as Warner Bros have returned to theatrical windowing, after the cannibalisation of box-office receipts proved too costly.

The hardest task for subscription services is getting third-party developers to add their latest games to a library. Google, which

Switching shares

Worldwide video-game market share, 2022

% of total



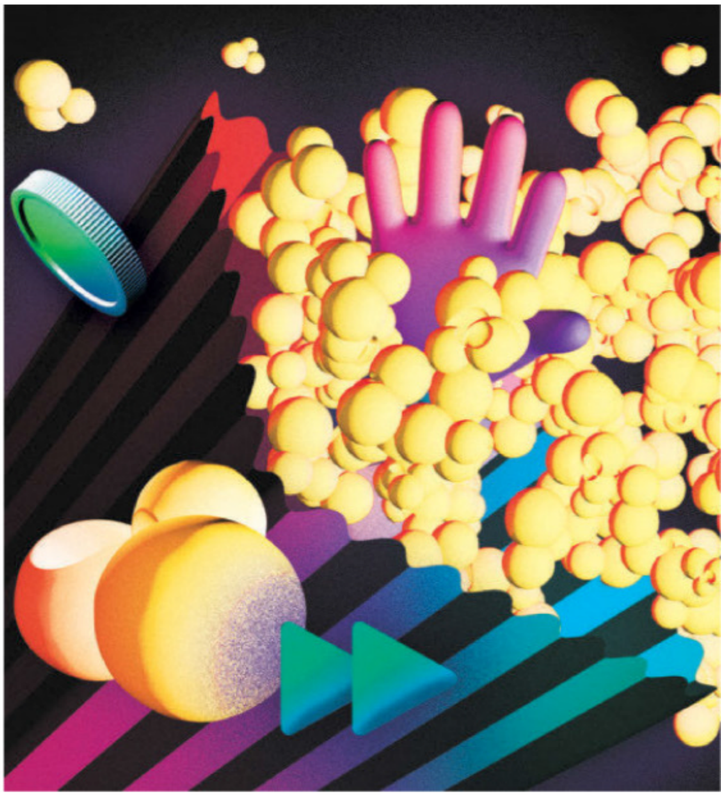
Source: Ampere Analysis

*At end of Q4

gave up making games of its own, struggled to keep Stadia sufficiently stocked. Some developers see subscriptions as a good way of gaining exposure to wider audiences. Mr Utsumi of Sega says subscription libraries are good for reaching families and occasional "hobby gamers", so putting "Sonic Racing" on Apple Arcade has got the famous hedgehog in front of more people when Sega is also pushing Sonic movies and other spin-offs.

The biggest games tend to make more money by maintaining a long period of exclusive retail release. With subscriber numbers an order of magnitude lower than those of Netflix, "The subscription services typically don't have the financial wherewithal to buy us out of our windows," says Mr Zelnick, who sees subscription working mainly for older titles "at the far end of the value chain". Some smaller developers are reluctant to sell because their venture-capital backers want to maintain unlimited returns that come with unit sales, rather than cash out upfront. Many of the largest games, such as "Fortnite", already have direct-to-consumer subscriptions of their own.

Subscriptions are likely to grow. Microsoft's Game Pass should get a big boost with Activision Blizzard, whose trove of popular titles would make the bundle much more attractive (perhaps too attractive, say regulators in America, Britain and the European Union, who are scrutinising the deal). As consumers manage their inflation-eroded budgets more carefully, subscriptions may also appeal more. A year's access to hundreds of games for roughly the price of two new ones can seem good value. Yet gaming's concentrated consumption patterns, and the difficulty of acquiring third-party content, will limit their appeal. Unlike music and television, streaming and subscription seem more likely to complement existing forms of distribution than replace them. ■



Production

Mouse, keyboard, action

Video games are getting more expensive to make, but cheaper to play. Why?

HIGH TECHNOLOGY fills the headquarters of NCSoft, a South Korean developer of such popular video games as "Lineage". But in a basement studio, Lee Seung-gi is a master of low-tech tools. Mr Lee, who spent eight years in the film industry, makes sound effects. To conjure the noise of a skeletal monster rising from the ground, he crunches crab shells. For a laser gun, he hooks a slinky to the back of a chair and flicks it: *peeoww*! Hardest, he says, are simple footsteps, recorded in a tray of gravel: the trudge of a sad character sounds different from the light step of one in love.

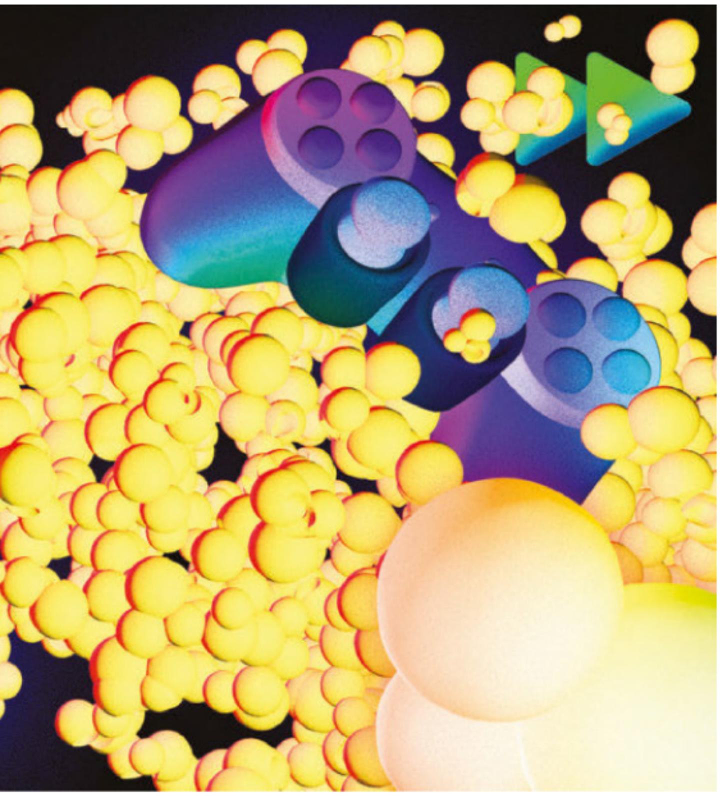
Making a blockbuster game is now like making a blockbuster movie. As technology lets games grow larger and more lifelike, they have taken on Hollywood-style budgets and timetables. And as the line between film and digital games blurs, that has two effects. One is that labour markets and production techniques for gaming converge with those of the film business, to the point where some envisage a single production process. The other is that game studios become more focused even than film studios on monetising a few successful franchises.

When Allen Adham and two college chums founded what is now Blizzard Entertainment in 1991, making a game didn't require many people. "Rock n' Roll Racing", one of Blizzard's early hits, had a development team of ten, he recalls. Today at Blizzard's campus, south of Los Angeles, some games are developed by teams of over 500. Leaps in graphical fidelity have created jobs that did not exist; six or more people might work only on lighting effects. In some ways creating a game is harder than making a film, says Rod Fergusson, who is in charge of Blizzard's "Diablo" series. "Movies have a language and a process that everyone understands," he says. With games, "you have to reinvent the camera every time."

Across the industry, an AAA game (the highest-fidelity sort) might take anything between three and seven years to make. Budgets are kept quiet, but "Cyberpunk 2077", one of the biggest releases of 2020, was said by its Polish developer, CD Projekt, to have cost 1.2bn zlotys ($275m), which represents a chunky amount even by Hollywood standards.

As games become more like films, movie people move in. "There's a lot of crossover now with these various labour markets…the skill set is very interchangeable," says Asad Qizilbash, head of PlayStation Productions, which makes films and TV series based on Sony's games. Neil Druckmann of Naughty Dog, who created "The Last of Us", a hit PlayStation game, co-wrote a TV adaptation released by HBO in January; HBO's cinematographer paid a return visit to Naughty Dog to share TV techniques. In Los Angeles actors and writers increasingly divide their time between filmed and interactive entertainment: Keanu Reeves had a role in "Cyberpunk 2077", and George R.R. Martin, creator of the Game of Thrones series, wrote the backstory for "Elden Ring", one of last year's biggest games. The only bit of Hollywood that hasn't translated to gaming is comedy, which one developer attributes to games' long gestation periods: "No joke is funny for three years."

As the video-game industry sucks in movie talent, Hollywood feeds off games' intellectual property (IP). Film adaptations of games have a poor record ("One of the worst movies I've ever seen" is the verdict of one gaming boss on Hollywood's interpretation). But things are changing. Sega's "Sonic the Hedgehog 2" and Sony's "Uncharted" were among last year's highest-grossing films. A new



"Mario" movie from Nintendo is due in April and a "Gran Turismo" film from Sony in August. Netflix has dozens of game adaptations out or in the works; future ones include spin-offs of "Assassin's Creed", "Splinter Cell" and "Bioshock".

More sophisticated games make better material for film adaptation, notes Mr Qizilbash. Today's producers, who grew up with games, are keen. "If you talk with Hollywood people, they're big fans of gaming. They know all our IPs," says Utsumi Shuji of Sega, who likens his company to a "treasure island" of properties that are ripe for exploitation. Julia Alexander of Parrot Analytics, a research firm, says "Gaming will be in the 2020s what comics IP was in the '00s and '10s."

Turning games into films and vice-versa is becoming easier as the two use the same technology. Game "engines", 3D-modelling tools used to make realistic playable environments, can also make virtual sets for TV productions such as "The Mandalorian", a Star Wars spinoff made by Disney with the help of Epic Games' Unreal Engine. For the "Gran Turismo" movie, digital models from the PlayStation game rehearsed stunts and shots, says Mr Qizilbash. The process works in reverse: Sony plans to scan cars from the movie and put them in the next update of the game.

Gamemakers have found different new ways to wring money from old hits

The same digital "assets" (sets, cars, etc) could one day be shared between games and movies. For now, a game's environment is more interactive than a film's; and films' backdrops are higher fidelity than games'. But the two production processes are converging from the gaming side. "The gamemakers have a more demanding set of requirements for these virtual worlds than the film-makers do. So somebody's going to invest in a [gaming] simulation that's photo-realistic. And then they're going to shoot a movie in it," says one Hollywood executive. "It will happen. And it's probably not too far away."

Companies that span films and games are well placed. Sony has sat out video "streaming wars", declining to launch its own version of Disney+. But it has a pilot in Poland where subscribers to its PlayStation Plus gaming service get access to Sony movies. Such a service could one day let customers watch films like "Gran Turismo" before seamlessly switching to a game, or vice-versa.

The growing cost of gamemaking makes them like Hollywood in another way: repetitiveness. Many film fans complain that the box office is overrun with sequels and remakes, as studios become less willing to risk blockbuster budgets on unknown products. All of 2022's ten highest-grossing movies in America were part of a franchise, from "Avatar" to "The Batman". Games, whose lead time makes it even riskier to try new things, have become more predictable. Seven of last year's ten most-played games on PCs and consoles featured in the previous year's top ten, says Newzoo, a data company, which studied 37 mainly rich markets. One of this year's big releases is the 16th instalment of Square Enix's "Final Fantasy", a Japanese series running since 1987.

Subscriber models

Where movies are locked in endless sequels and prequels, gamemakers have found different new ways to wring money from old hits. Developers used to finish making a game and go on holiday. Today, "Shipping the game is just the beginning. The real work starts after that," says Mr Adham. Rather than merely release sequels, Blizzard has turned "World of Warcraft" into a subscription service, with regular updates to maps, missions and characters for those willing to pay. This setup, which is known as "games as a service", keeps gamers engaged (and spending) year after year.

The model has proved itself. Take "PUBG", a "battle royale" shooting game released by Krafton, a South Korean publisher, in 2017. In its first four years the game sold 75m copies at $30 each. But, facing competition from rivals such as "Fortnite", it went free in January 2022, instead charging players for extra features. "To get more users we went free-to-play, because more users is more fun," says Kim Chang-han, Krafton's chief executive. It is also lucrative. Last year the mobile version of "PUBG", which has been free to play since 2018, was the second-highest grossing mobile game in the world, generating revenue of $2.1bn, says Sensor Tower, a data firm. In the past five years, updates and new features have persuaded "PUBG Mobile" users to part with more than $9bn.

"Games are no longer simply consumer packaged goods. They have become live services. That means the name of the game is no longer just to attract players, but to retain them," says Jack Buser, who runs gaming at Google Cloud. Having failed to crack the game-streaming business with its defunct Stadia platform, Google has repositioned itself to focus on helping developers run live-service games. A live platform needs servers, scalable databases and analytics tools, says Mr Buser. His pitch to developers is: "Let us solve the hard computer-science problems…and that means you can focus on building the world's best game."

Live-service games have made the industry less hit-driven, says Strauss Zelnick of Take-Two Interactive. His company releases blockbuster sequels to franchises like "Grand Theft Auto" (GTA). But it also runs "GTA Online", a game with continually refreshed content. Last year it launched GTA+, a $6-a-month subscription giving players access to more in-game features. It has similar online versions of games like "Red Dead" and "NBA 2K". These bankable properties keep revenue coming between sequels, making the business less lumpy. "It used to be a much more volatile business than it is today," says Mr Zelnick. "If you want to use an old media analogy, we looked a lot more like the movie business—and now it's much more like the television business." ■

Spectator sports

Game and watch

Broadcasting gameplay has become a big business

Kim Kyu-min is an admirably dedicated student. Even in his winter break, the 18-year-old goes twice a week to a cramming school, where he has four hours of intensive tuition followed by four more of individual practice until 10pm. In a classroom furnished with desks for 28 students, he sits in quiet concentration as a teacher holds forth. The unusual thing is his subject of choice: not English or maths, but "Valorant", an online game.

At Seoul Game Academy, a chain of schools in South Korea's capital, 3,000 students aged nine and up (roughly 99% of them boys) hone their skills at nine games in hopes of becoming full time "e-sports" athletes. The school, which charges about $500 a month for three sessions a week, advertises itself as "the quickest way to become a pro gamer". Gleaming trophies in the principal's office show off recent successes at games such as "KartRider".

E-sports are a national obsession in South Korea, where Lee Sang-hyeok, a "League of Legends" player with the *nom de jeu* of Faker, reportedly earns more than any player in the country's football league. Parents were sceptical when the Seoul Gaming Academy opened in 2011, says its director, Park Se-woon. Today they see gaming as a good living, not least since those who don't make it as e-athletes often forge careers in game development. Parents are increasingly gamers themselves, says Mr Park. "Some even come in for lessons."

For game publishers, e-sports serve two purposes. First, broadcast and sponsorship rights to e-leagues raise money, as in any other sport. Riot Games, the California-based, Tencent-owned company behind "League of Legends", has sold five years' streaming rights for its Chinese league to Huya, a Chinese streaming service, for a reported $310m. Its Korean league is sponsored by businesses ranging from a local barbecue-chicken brand to the jeweller Tiffany & Co.

Second, publicity from e-sports drives adoption of the game. One American rival of Riot says it designs games to be popular in South Korea, hoping they will be picked up by the e-sports crowd. Com2uS, a Korean developer of games including "Summoners War", says athletes' fans are useful networks for promoting games. It is planning a "Summoners" match between teams from South Korea and Japan. In September the Asian Games, a continental

Finish him!

Classification borrowed from the film industry is adapting to resemble that of social media

Censors at the British Board of Film Classification were puzzled in 1986 by a copy of "Dracula". The BBFC normally reviewed films and videos. But after playing the game it deemed its gory scenes, splattered with red pixels, too shocking for children and banned its sale to those under 15. The game's publisher, CRL, delighted by the publicity, set its sights on getting an "18" certificate for its next game, "Jack the Ripper".

As games became more realistic they attracted more regulation. After the home release in 1993 of "Mortal Kombat", which set a new standard in gruesome violence, America's Congress pushed the games industry into setting up an Entertainment Software Ratings Board to dish out age ratings. In 2003 the Pan European Game Information rating did a similar job. Games settled into a classification regime similar to that of movies.

Nowadays concerns about content in digital games are less about what developers have included than about other players. Most big games are online, multiplayer affairs, in which players are exposed to strangers who communicate by text or microphone. The main challenge is moderating what millions of users say and do. The content debate has moved from being similar to the movie industry's to one more like arguments over regulating social media.

Meta, which has experience of content moderation on Facebook, has found problems on its virtual-reality platforms. When users of "Horizon Worlds", its main VR space, complained of being virtually groped, it introduced a minimum distance between avatars. After the Christchurch shootings in 2019, users of Roblox, a platform on which they can create games of their own, began re-enacting the event before the company intervened. Roblox employs "thousands" of human moderators, as well as artificial intelligence, to check user-submitted games and police chat among its 60m daily users, who have an average age of about 13.

As with social media, regulators are unsure how far to go in censoring speech. Mark Zuckerberg, Meta's boss, has said social networks are like newspapers, because users can publish to a mass audience, but also like phone companies, since they allow one-to-one communication. In 2018 Germany introduced a new law holding social networks responsible for content on their sites, treating them like publishers. Politicians debated including video games as well, before deciding in-game chat was more like one-to-one conversation, which is protected by the constitution, says Niko Härting, a tech lawyer.

Gamemakers are doing their best to design out bad behaviour before it occurs. In "World of Warcraft", players join either the "Alliance" or the "Horde". They can talk to their own team, but if they try talking to the other side, their speech is translated into unintelligible orcish or elvish. The result, says Allen Adham of Blizzard Entertainment, which makes the game, is that "players play really nicely with each other, because they have a common enemy."

sporting contest, will include digital games for the first time.

E-sports have yet to engage Western audiences quite as much. About 20% of Americans take an interest, according to a poll by Morning Consult—slightly less than follow horse-racing. Instead they soak up hours of other gaming-related content. In America 69% of Generation Z watch gaming videos, ranging from how-to guides to time trials or stunts. YouTube, which sells $30bn in ads per year, counts gaming as its second-largest content category after music. "Minecraft" is among the most-searched terms on TikTok, according to DataReportal, a research firm. On Twitch, a live-streaming service owned by Amazon which focuses on gaming, the most popular channels are not professional e-sports but general gaming chat. Epic Games recently launched Postparty, an app for sharing "Fortnite" clips.

Back at the League of Legends Arena in Seoul, a game is under way. After referees check their computers, ten slender, track-suited athletes do warm-up exercises with their mouse. As two-dozen sports journalists munch quails' eggs and kimchi in the press room, Faker's team, T1, proves victorious. Players pack up their keyboards and bow, while fans (mainly girls) wait outside with love-letters and flowers. Mr Kim, the gaming student, has known this is the career for him since, as a schoolchild, he saw a professional gamer lift a trophy in triumph. As his principal, Mr Park, puts it, "It's not just about a game, it's about a dream." ■

Geopolitics

Super Mario diplomacy

Gaming is a growing source of soft power, influence—and perhaps espionage

OF ALL THE shrines in Kyoto, the most sacred for some is in the south. As snow falls, a guard stands watch, making sure no pilgrims get too close. The site is surrounded by a wall, but over it a grey building is visible, marked with eight characters that spell out its name: Nintendo. Japan's gaming industry has a following bordering on the religious. In Tokyo foreigners flock to Akihabara, the "electric town" of game arcades, or roar around by go-kart in homage to "Mario Kart". Osaka has a Super Nintendo World theme park. When Japan shows off to the world, it reaches for games as often as for samurai or sushi. Collecting the Olympic torch in Rio in 2016, its then prime minister, Abe Shinzo, emerged in the stadium from a green drainpipe, dressed as Mario.

Popular culture's "soft power" has been evident ever since Hollywood began. In 1950 Walter Wanger, an American producer, said film exports were more important "than the H bomb". Every movie reel exported was an American ambassador, he said, dubbing this "Donald Duck diplomacy". A new soft power is now on the rise: Super Mario diplomacy. As games take up a bigger share of people's time, they become a weapon in the battle of ideas. And unlike movies, in which America remains the world's only superpower, the contest in gaming is wide open.

Japan conquered Western living rooms in the 1980s when Atari, an American game pioneer, collapsed and Nintendo saw an opening. Japan's *anime* cartoons had a niche following, but gaming was the cultural export "that would really monetise and become an influential cultural phenomenon," says Nakamura Akinori of Ritsumeikan University in Kyoto. The university's Centre for Game Studies, stacked with 10,000 video games and 150 pieces of hardware, shows how Japan led the gaming market by the 1990s, with Nintendo, Sega and later Sony dominant. More American children recognised Mario than Mickey Mouse. Unlike Japanese consumer-electronic successes, notes Matt Alt, author of "Pure Invention", a book on Japanese culture, games represented not just efficient manufacturing but "a triumph of ideas".

Some ideas are stylistic: the two-dimensional artwork in games such as the "Pokémon" series follows a Japanese tradition which Hirabayashi Hisakazu, a writer on gaming, traces to the artwork of the Heian period. Others concern gameplay mechanics. The "loot box", a now-ubiquitous monetisation feature allowing players to buy a package of random power-ups, is derived from the Japanese market for *gacha*, vending machines that sell surprise toys. Japanese games have a greater emphasis than Western ones on co-operative play, and less on firearms, says Mr Hirabayashi, who talks of a culture of "the *katana*, not the gun".

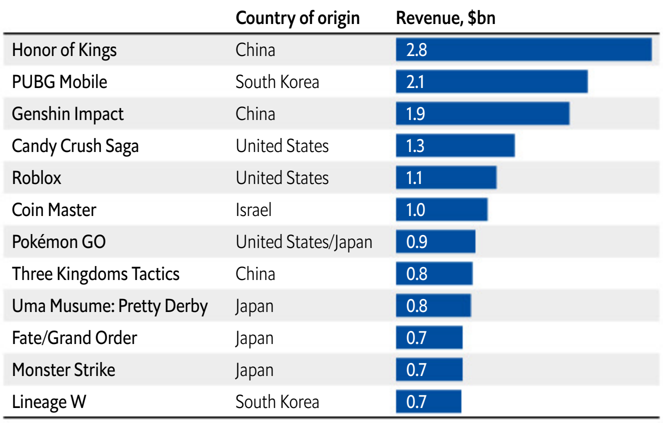
But Japan's grip is now weaker. Microsoft's Xbox gave America a share of the console market. Western developers found it easier to write games for the Xbox's Windows-based system. Sony and Nintendo still have a lead in consoles. But gaming has shifted to mobile, and the two main operating systems, Google's Android and Apple's iOS, are American-owned. The production of games is also more varied. Whereas the global movie business is still dominated by America (which produced 17 of last year's 20 highest-grossing films, with China making the other three), the games business is international: last year's 20 highest-grossing mobile games came from nine different countries.

Japan is also held back by a large domestic market with a culture that others can find baffling. In "Uma Musume" ("Horse Girl"), the world's ninth-highest-earning mobile game of 2022, the player trains young women to compete in races. The game made $800m in Japan last year, but has yet to be released elsewhere. South Korea has become the emerging new power, encouraged by a government that declared games part of the *Hallyu*, or Korean cultural wave, that includes K-pop music and such movies as the Oscar-winning "Parasite". Many of its games mimic Japanese style, but that is changing. Krafton, a big Korean developer, is working on a game adaptation of "The Bird That Drinks Tears", a series of novels based on Korean mythology.

If any country is now winning the race, it is China, which pro-

Ranking the rivals

Top mobile games by worldwide revenue*, 2022



	Country of origin	Revenue, $bn
Honor of Kings	China	2.8
PUBG Mobile	South Korea	2.1
Genshin Impact	China	1.9
Candy Crush Saga	United States	1.3
Roblox	United States	1.1
Coin Master	Israel	1.0
Pokémon GO	United States/Japan	0.9
Three Kingdoms Tactics	China	0.8
Uma Musume: Pretty Derby	Japan	0.8
Fate/Grand Order	Japan	0.7
Monster Strike	Japan	0.7
Lineage W	South Korea	0.7

Source: Sensor Tower

*Across the App Store and Google Play. Does not include revenue from third-party Android stores in China or other regions

duced six of last year's top 20 mobile games, including two of the top three: Tencent's "Honor of Kings" and miHoYo's "Genshin Impact". China's success contrasts with failed efforts in old media. Chinese movies compete with Hollywood in quality, but they are geared firmly to the home audience ("Water Gate Bridge", last year's biggest hit, is mainly about killing Americans). Yet though Chinese film-makers can focus on a domestic market, Chinese game developers cannot. China's government has dubbed games "spiritual opium" and slapped restrictions on them, limiting children's gaming time to three hours a week and rationing new releases. Developers have had to look to international markets instead. "Honor of Kings" has a medieval European look. "Genshin Impact" looks so like "Zelda: Breath of the Wild" that Nintendo fans publicly smashed up rival consoles in protest. Chinese developers have earned a reputation as "copycats", says Suh Bo-kyung of Bernstein, a broker. But their games are worldwide hits.

This Chinese success has sparked concerns, and not only among developers in other countries who feel ripped off. One worry is security. As with TikTok, a Chinese-owned social-media app that has spread like wildfire in the West, Chinese games are seen as tools gathering data for China's government. Games often seek personal information—name, date of birth, payment details—or record voice clips. The move to online play makes for better spying tools, since "people's boxes will be connected directly to China", says James Lewis of the Centre for Strategic and International Studies, a think-tank in Washington, DC. Some players accused "Genshin Impact" of installing spyware on their PC after finding its anti-piracy software running even after the game was removed (the developer said this was a mistake and issued a fix).

Chinese whispers

Even American firms with Chinese investment are under scrutiny. In 2020 America's Committee on Foreign Investment in the United States (CFIUS), the Treasury-chaired security committee that is looking into TikTok, reportedly wrote to Riot Games and Epic Games (respectively wholly and partly owned by Tencent) to ask how they handle personal data. In December Epic was fined $275m by American regulators for illegally collecting children's data. CFIUS is not yet alarmed, Mr Lewis believes. But as gaming technology is adapted to purposes beyond mere play, security concerns become more sensitive. Game engines, 3D-modelling tools for developing games, are used for everything from airport management to war-gaming simulations for the armed forces.

A second worry is over broader Chinese influence. Western studios may change games in China to tone down sex or violence, or replace skeletons with zombies to skirt laws against "superstition". But the reach of Chinese censors extends far beyond China. The chat function in "Genshin Impact", for instance, blots out such sensitive words as "Taiwan" and "Falun Gong" (alongside "Hitler" and "Putin"). And some Western developers bend the knee to the Chinese government. In 2019 Ng Wai-chung, a Hong Kong-based e-sports player, used a post-match interview to declare: "Liberate Hong Kong, revolution of our time!" The American game company that ran the league, Activision Blizzard, which counts Tencent as an investor, cancelled his $10,000 prize money and suspended him from competing, writing on its Chinese social-media account that it would "resolutely safeguard [China's] national dignity". (After an outcry in America the firm partly backtracked.) Riot Games, which is wholly owned by Tencent, later announced that it would ban political speech from its "League of Legends" tournaments.

Game studios are "increasingly savvy and increasingly paranoid" in their dealings with China, says James Tager of PEN International, a free-speech pressure group. Like old-media companies worried that an offensive film might jeopardise not just a single title but their other interests in China, game developers that are part of big companies are likely to practise self-censorship to preserve market access, he says.

So far the trade-offs have attracted less controversy at home than the equivalent moves by Hollywood studios, which have been accused by American politicians of "kowtowing" to China. As Mr Tager puts it, one reason may be that "the average representative in Congress is not playing video games, but they are watching movies." As gaming's popularity grows, Chinese-made games find their way into more living rooms and more gamers enter Congress, Western politicians' complaints may grow louder. ■

User-generated content

The YouTube of gaming

Do-it-yourself games are taking off just as DIY video did

"STOP THAT or someone could get injured!" shouts the teacher, as a pupil stands on her desk, dancing the Macarena. "You are a student, not a baby!" A class of avatars snigger. This is "The Presentation Experience", a game on Roblox, an app popular with schoolchildren. As one player gives a presentation, others do their best to interrupt and make a nuisance of themselves. By pressing different buttons they can heckle, burp or go to sleep. If they pay they can be even more disruptive: for 99 robux, Roblox's in-game currency (about $1.25), they can "make everyone mega fart".

The gameplay is basic and the graphics rudimentary. But "The Presentation Experience" has had 190m plays since it was launched less than 18 months ago. It is one of 32m "experiences" on Roblox, which lets users design and publish homemade games. Never mind that the gameplay looks fairly low-fi; some 60m people play Roblox a day, generating revenue in 2022 of over $2bn in purchases of in-game items—mega farts and all.

The TV business has gone through a revolution in what media types call user-generated content. Smartphones give everyone a way to record and publish home videos in seconds. The result is

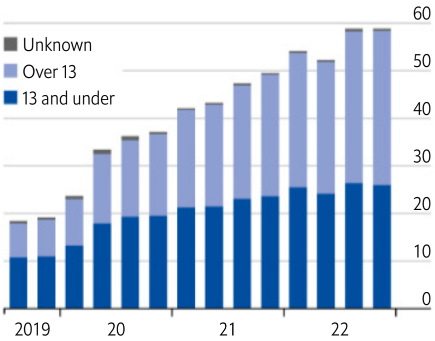
that even as professional content has become more plentiful and lavishly financed, viewers spend more time on amateur content. Americans under 18 spend almost twice as much time on TikTok and YouTube as on Netflix and Disney+, says Qustodio, which makes parental-control software.

Many wonder if this may happen to gaming. User-made games already have a vast reach among young people. In 2020, amid covid-19 lockdowns, Roblox estimated that three-quarters of American 9- to 12-year-olds were using the platform. "Minecraft", a Microsoft-owned game that lets players visit each others' constructions, has 120m monthly players. Like YouTube and TikTok, most user-made stuff is low quality. But like those sites, algorithmic sifting of a near-infinite variety serves up plenty for users.

As on YouTube, ever more content on platforms like Roblox is professionally made. Some small developers have shifted to the platform, aiming for a share of the $600m earned by creators each year. Big brands use it as a place to reach new audiences. Sega has licensed a Sonic game to Roblox. As on YouTube, where creators like Jimmy "MrBeast" Donaldson began as amateurs before turning professional, many successful developers made games as a hobby before going full-time. Simple Games, which makes such Roblox titles as "War Simulator", began as a hobby for its founder, Nathan Clemens, and now employs his whole family.

Getting older

Roblox daily active users, by age group, m



Source: Roblox

The big difference between films and gaming is that game developers have proved more adept at incorporating user-made content into their productions. Whereas home-made content has emerged as a competitor to professional film-makers, game studios have made it part of their business model, monetising it themselves.

Since the earliest days of PC gaming, players with programming expertise have "modded", or modified, games by taking the source code and altering it to change the game, sometimes trading their "mods" online, with various degrees of consent from the developer. Built-in features such as map editors let players make their own designs, and it has become standard to allow players to customise in-game avatars.

Do it yourself

The most important user-generated input comes in multiplayer games, where users generate "content" by acting as each other's opponents. Many recent hits have been online titles like "League of Legends" or "Fortnite", in which the thrills come from interaction with other users. "Because players are infinitely creative, you can make the sandbox, throw some people in there, and the player stories that come out of that emergent play are endless," says Allen Adham of Blizzard Entertainment.

Enlisting players to entertain each other means games stay entertaining for longer. "If you look at the biggest games, there is demand from the players that it's constantly refreshed...and creating game content is a long process," says Tom Wijman of Newzoo, a game analyst. "Part of the reason why gaming companies are so eager to stimulate [user-generated content] and incorporate it into their day-to-day business is because it helps them crowdsource this content creation that has become expected by the gaming community". Mr Adham says "player v player" games "can be very production-efficient, because the players are providing the diversity of play". Sometimes the creation of new content is well managed. Online fans of games like "Grand Theft Auto" organise together to plan elaborate role-playing scenarios—bank heists, police chases and so on—before playing them together, often broadcasting the action on video platforms such as Twitch.

The complexity of making a game is a natural brake on how much original content users can generate. Meta's flagship virtual-reality app, "Horizon Worlds", has struggled to attract users, partly because it relies on user-made virtual environments that few amateurs are able to build. Yet there is an expectation that artificial intelligence (AI) will make things much easier. Roblox has shown off a forthcoming feature that will let developers use AI to program games with simple text prompts, such as "make it rain". Microsoft has reportedly come up with a voice-activated AI assistant for "Minecraft" that builds structures on demand. Niantic, which makes augmented-reality games and apps, has developed a tool to create interactive 3D models using voice instructions. Apple, which may release a virtual-reality headset later this year, is working on similar technology.

Whether in film or in gaming, demand for user-made content is growing. "This younger generation doesn't just want content thrown at them," says Craig Donato, Roblox's chief business officer. "They want to feel a sense of agency or co-ownership of the medium…[and] that they are not just consumers of content, but that they can also be participants in the creation of the content." The video-game business has done a better job than Hollywood of turning this to its advantage. ■

The future

It's only a game

Video games are becoming platforms for more than play

AFTER ARRIVING by parachute, the spectators rushed to a concert in a park. Next they went to a grimy city, where they escaped a snarling, fiery monster. Then they flew to a stadium to see a show, during which they floated around the arena.

A game? A gig? A social event? The makers of this live production, staged on January 27th by The Kid Laroi, an Australian rapper, opted for "immersive sonic experience". It took place in "Fortnite", an online multiplayer game that is often a venue for mass virtual gatherings. It was the latest case of games being the platform of choice for digital activities that go beyond conventional play.

There was a burst of excitement about such experiences in 2021, when they were dubbed part of the "metaverse", a term coined in "Snow Crash", a 1992 novel by Neal Stephenson. This virtual space would form "a new economy that is larger than our current economy", promised Jensen Huang, chief executive of Nvidia, a chipmaker. Mark Zuckerberg changed Facebook's name to Meta and called it a "metaverse company". The buzzword featured over 500 times on company earning calls in the final quarter of 2021, says a tally by GlobalData, a research firm. But the metaverse has fallen out of fashion. It became linked to the boosterism for cryptocurrencies and non-fungible tokens before their crash in 2022. Investors' excitement turned to impatience, not least at Meta, whose share price plunged by 65% last year. Last month Mr Zuckerberg announced cuts and a "year of efficiency".

One reason for disillusionment with these virtual worlds is the slow pace of improvement of virtual and augmented reality (VR and AR), technologies that bring such environments to life. About a quarter of American adults under 40 own a VR headset, largely thanks to Meta, which sold truckloads of its Quest 2 goggles to a bored, locked-down audience. But headsets are more of a novelty than the ubiquitous platform Mr Zuckerberg predicted. Apple's first headset, due later this year, may cost several thousand dollars. "There's a very high entry-barrier for users, particularly in emerging countries," says Kim Chang-han, chief executive of Krafton, whose free games are played mostly on mobile phones.

The delayed arrival of good, cheap VR and AR technology means most immersive online experiences are still on ordinary screens, where games are the leaders. "I didn't see video games coming when I wrote 'Snow Crash'. I thought that the killer app for computer graphics would be something more akin to TV," Mr Stephenson wrote. "Thanks to games, billions of people are now comfortable navigating 3D environments on flat 2D screens."

Games like "Fortnite" have created the cheapest and most realistic 3D environments. This became clear in the pandemic, when real-world gatherings hastily went online. After South by Southwest, a festival in Austin, Texas, was cancelled in 2020, revellers decamped to "Minecraft" for a virtual festival called Block by Blockwest. Bored by Zoom, some people staged work meetings in games. "Red Dead Redemption 2", a cowboy adventure, facilitated cosy team chats around the campfire (as well as shoot-outs).

Lockdowns may have lifted, but the use of gaming environments for other purposes has continued. Roblox has staged concerts and fashion shows, as well as educational events for organisations like the Museum of Science in Boston, which organised a virtual mission to Mars. FIRST, an educational outfit which organises robot-building contests for children, runs them on Roblox too. Epic Games, which makes "Fortnite", is working with the LEGO Group to build what it calls a metaverse for children.

As games evolve, they swallow up experiences that once belonged to other media. Last year "The Walking Dead", a long-running TV drama, staged an interactive experience on Facebook Gaming. Users participated in daily activities to determine how the story would unfold. GenVid Technologies, which created the hybrid game-cum-show, will launch a similar experience based on "Silent Hill", a long-running video game. Netflix has used streaming to create interactive TV shows where viewers can choose how the plot develops. And where once people watched fitness videos, increasingly they play fitness games. In February, after a battle with regulators, Meta acquired Within, which makes VR workout experiences. In the same month Tencent invested in Quell, a British maker of fitness games.

Many believe that AR, which maps video graphics onto the user's vision of the real world, will be the next big tech platform. Tim Cook, Apple's boss, has called it "profound". Yet today the most successful AR app is "Pokémon GO", a monster-hunting game in which players use mobile phones to track down animated creatures. Technology honed in "Pokémon GO" has allowed Niantic, its American developer, to devise a system for mapping the world in AR, something that will have widespread uses if AR glasses become mainstream.

As interactions are more electronically mediated, gaming touches all corners of life

Gaming's lead in these new platforms is down to technology overlaps. But another explanation is behavioural. "Games, even before video games, were a way for people to meet one another and spend time together socially," says John Hanke, Niantic's chief executive. "So when you talk about getting people together through some electronic mediation, games are already a natural fit." As interactions are more electronically mediated, gaming touches all corners of life. "Perhaps one day, we won't even have the term 'gamer'," says Jim Ryan, chief executive of Sony's gaming division, "because everyone will play in some form or other." ■

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French pension reform

Breathing space

PARIS

Emmanuel Macron's government survives, but his troubles are not over

By a wafer-thin margin of just nine votes, the French government survived a no-confidence vote on March 20th, opening the way for its controversial pension reform to be written into law. The result in the National Assembly was far narrower than many had expected, and reflects a level of political discontent that is unlikely to dissipate. The immediate political crisis for President Emmanuel Macron may be over, but popular unrest could yet spread.

Opposition parties needed 287 votes to dislodge Mr Macron's minority centrist government. This would have annulled his legislation raising France's minimum pension age from 62 years to 64. But a motion of no-confidence proposed by a cross-party alliance got just 278 votes. A second effort to topple the government, tabled by Marine Le Pen's nationalist-populist National Rally, failed by a far wider margin.

This ought to mean that Elisabeth Borne, the prime minister, and her team can turn the page and move on. The pension reform still has to secure approval from the constitutional council, the country's highest court. But it has now gone through parliament. Mr Macron judged last week that he would not get the votes to pass the reform in the lower house with a regular vote, so he used a constitutional provision known as article 49.3 to push it through without one. It was clear that this could lead to a no-confidence motion. Mr Macron won the bet.

Politically, however, this decision will leave a bitter aftertaste. The pension reform itself is unpopular. During six weeks of parliamentary debate, protest marches and strikes (by railway workers, rubbish collectors and others), two-thirds of the French have remained stubbornly against raising the retirement age. No argument deployed by the government—the threat of future funding deficits, the need to preserve the system even as people live ever longer—has dented this hostility.

The president's decision to resort to article 49.3 has enraged people further. Fully 78% told a poll that they were against the use of this tool. The opposition sees it as an anti-democratic abuse of power. Ahead of the vote Charles de Courson, who led the cross-party motion of no-confidence, called the use of article 49.3 a "denial of democracy". Protesters have gathered in Paris and other cities after dark, some setting fire to bins of stinking, uncollected rubbish. In several towns, riot police have been sent in.

Mr Macron's dilemma is that although his pension reform is deeply unpopular, it is right for France. The country spends 14% of GDP on public pensions, nearly double the average for the OECD, a club of mostly rich countries. In 2004 there were 13m pensioners in France. Thanks to longer life expectancy and retiring baby-boomers, by 2030 this figure will rise to 20m. Re-elected in April 2022, Mr Macron could have left a brewing problem to a successor; instead he decided it was worth spending precious political capital to solve it. "Do you think it ⏩

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gives me any pleasure to carry out this reform? No," Mr Macron said in a televised interview on March 22nd, declaring it "not a luxury, nor a pleasure" but "a necessity".

Moreover, his use of article 49.3 is unusual, but not unique. Designed to strengthen the hand of government, the article was written into the constitution of the Fifth Republic by Charles de Gaulle as a response to the instability of the Fourth. De Gaulle himself used it in 1960 to launch France's nuclear-deterrence programme. Since then it has been used 100 times, by governments on the left and the right, Ms Borne's included.

Mr Macron's proposal to raise the retirement age was also part of his manifesto during his re-election campaign, and he and his government tried to forge a consensus. Ms Borne spent months consulting unions and opposition leaders and redrafting the legislation with new concessions, especially to the centre-right Republicans. Parliament devoted 175 hours to debating the issue, in part to deal with some 13,000 amendments tabled by NUPES, a left-wing alliance led by Jean-Luc Mélenchon, in a bid to hold up any debate. When the legislation went to the Senate, which is controlled by the Republicans, it was approved—even though 19 Republicans in the lower house then voted against the government.

The outcome, however, is likely to feel like an empty victory for Mr Macron. It is unfortunate, to say the least, that the reform was not approved through normal parliamentary procedure. "We can't just say that the crisis is now over and continue as before as if nothing has happened," says Gilles Le Gendre, a deputy from his party.

The episode will also exacerbate Mr Macron's reputation for having an imperious governing style. As it is, the president's popularity rating has fallen to just 28% from a high of 41% after his re-election, according to Ifop, a pollster. This is its lowest point since early 2019, during the *gilets jaunes* (yellow jackets) rebellion. A comparable popular uprising, on top of ongoing political disorder, cannot be ruled out. Ahead of a national strike on March 23rd, Laurent Berger, a union leader, described the aftermath of the vote as "the worst social crisis for ten years."

Mr Macron has few good options. In the combative TV interview on March 22nd, the president ruled out either an immediate change of prime minister or fresh elections. He knows full well that with the public mood as it is, such a vote would do nothing to shore up his party in parliament. It would be more likely to benefit the extremes. A formal alliance with the Republicans looks unworkable at this point. For now, Mr Macron has won himself some breathing space to try to reboot his minority government, if little else. ■

Ukraine's drones

Remote-control war

KYIV

Another way to strike deep into Russia

On February 28th Russia's skies buzzed with hostile drones. St Petersburg, the country's second city, imposed a no-fly zone. In Krasnodar in the south, an oil depot went up in flames. Drones reached Belgorod and Bryansk regions, which share a border with Ukraine. One came within 100km of Moscow. It was not the first time Ukrainian unmanned aerial vehicles (UAVs) had penetrated Russian defences, but it was their first concerted attack. Many Ukrainians hope they are the key to overturning Russia's deep-strike advantage—even without long-range Western munitions like ATACMS missiles, which may never come.

Ukraine is deploying at least five kinds of drones: small, commercially available short-range reconnaissance vehicles; small, improvised loitering munitions; sophisticated reconnaissance or electronic-warfare drones; larger loitering munitions to destroy armour; and airborne or naval strike drones with ranges of hundreds or even thousands of kilometres. The former types are mostly produced abroad, but strike drones are almost exclusively Ukrainian. It is here that inventors hope for breakthroughs.

Mykhailo Fedorov, the 32-year-old deputy prime minister responsible for both Ukraine's drone programme and its digital transformation, says a turning-point may come soon. The army has established 60 new attack-drone squadrons, at least one in every brigade, with separate staff and commanders. This is the first reform of its kind anywhere in the world. Ukraine's military doctrine has been updated with guidelines on drone use. The defence ministry has created a board to co-ordinate drone producers. And this month a new military "cluster" venture is launching, designed to link Ukrainian military tech with international companies and capital.

Up, up, into the air

A defence-industry insider confirms that the army will gain "significant and high-tech capacity" in the coming months, but says it will still struggle against the Russians. "The Russians are very, very good at what they do...They can jam frequencies, spoof GPS, send a drone to the wrong altitude so that it simply drops out of the sky." Ground-based air defences make it a struggle for Ukrainian drones to see more than 15km behind Russian lines, says one expert with recent experience.

Early on the Ukrainians appeared to pin hopes for controlling drones behind Russian lines on Elon Musk's Starlink satellites. A naval-drone attack on Russia's Black Sea fleet in October reportedly used these. But Mr Musk, apparently worried about the escalatory effect of such moves, has blocked use of Starlink terminals both above Russian-occupied Ukrainian territory and, according to a Ukrainian military-intelligence source, over water and when the receiver is moving faster than 100kph. Ukraine's drone developers now use more expensive communication systems, often several on the same vehicle.

Ukraine's strike-drone programme still appears some way from the production volumes to rival Russia's long-range strike capacity, says Seth Frantzman, the author of "Drone Wars". America is reluctant to provide air-launched weapons that drones could fire deep inside Russia. Another bottleneck is the petrol engines (as opposed to electric motors) needed to power them over long distances. Only a limited number of manufacturers produce them, and Ukraine competes with its enemy to buy them. "We really sense the presence of the other party here," says Mr Fedorov, the deputy prime minister. One drone manufacturer says Ukraine is playing catch-up with Russia: "We shouldn't kid ourselves. They activated their production lines far faster than we did."

Yet Russian generals appear concerned by the threat. New air-defence systems have appeared in Moscow. Ukrainian drone-production facilities have become a target of Russian missiles. Dmytro Shymkiv, the co-owner of AeroDrone, a long-distance drone manufacturer, says his company has kept production secret and mobile. Many in Ukraine are betting on a breakthrough. "Necessity has always been the mother of invention," says the military-intelligence source. ■

Finland and NATO

Land of cold wars

HELSINKI AND SUOMUSSALMI

The border with Russia is hostile again

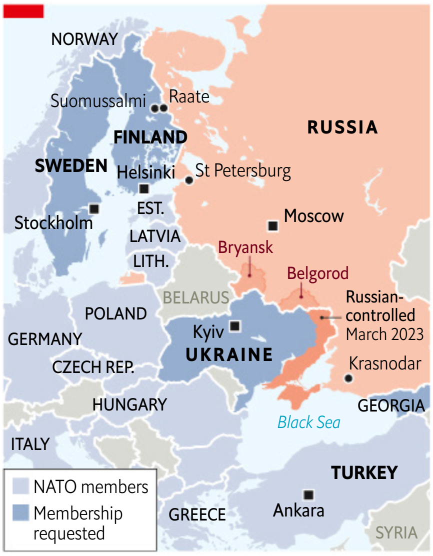
IN WINTER THE snow outside Suomussalmi, a town 600km (370 miles) north of Helsinki, lies a metre deep. Step off the road and you sink to your thighs, as the Soviet army's 44th Rifle Division found when it invaded Finland during the Winter War of 1939-40. Once its 14,000 men, 530 trucks and 44 tanks had passed the border village of Raate, the Finns blew up its lead and rear vehicles. For weeks, while the trapped column froze and starved, Finnish ski troops in white camouflage glided through the woods slicing it to bits. The division's commander struggled back to Soviet lines, where commissars had him shot.

Most Soviet soldiers were Russian, but those on the Raate road were Ukrainian. Some 82 years later, Ukrainians fighting for their own country would trap and smash a Russian army on a motorway north of Kyiv using much the same tactics the Finns had. Finland reacted with a shock of recognition. It abandoned its policy of military neutrality, first forced on it by the Soviets, and applied to join NATO. Its neutral neighbour Sweden did the same.

Since then both countries' applications have been held up by Turkey. The Turks' main problem is with Sweden, which it accuses of harbouring various enemies. In January Turkey suggested it might admit Finland alone, an idea the Finns at first resisted out of solidarity. Yet they have gradually come to accept the notion. On March 17th Sauli Niinisto, Finland's president, visited Ankara. There Recep Tayyip Erdogan, his Turkish counterpart, announced he would start the process of ratification.

Mr Erdogan has left Sweden hanging, demanding the deportation of more than 100 people he calls "terrorists", mainly Kurdish émigrés. The Turkish president faces an election on May 14th, and bashing the Swedes is useful campaign fodder—the more so since a far-right Danish politician burnt a copy of the Koran in front of Turkey's embassy in Stockholm in January. Letting in Finland curries favour with America, which has been delaying selling Turkey F-16 fighter jets. Mr Erdogan also needs goodwill from NATO members, which he hopes will help Turkey rebuild after an earthquake in February.

For Finland, joining NATO makes some things simpler. Under neutrality Finnish leaders "had to be mini-Kissingers", pragmatically balancing their Western orientation and the eastern threat, says Ilkka Haavisto of EVA, a think-tank in Helsinki. Now deepening their Western alignment is itself pragmatic. NATO's guarantee of mutual defence will help Finland protect its 1,300km-long border with Russia.



Many of the Russian forces based in the region have been sent to Ukraine, says General Sami Nurmi of the Finnish army, but he expects them to rebuild over three to five years. The war has also made it much harder for Russian propagandists to influence public opinion. Where once they could exploit the Finns' traditional neutrality, "that changed almost overnight" after the war started, says Jessikka Aro, author of a book on Russian internet trolls.

There are some political wrinkles. Finland will hold a general election on April 2nd. Sanna Marin, the prime minister, is popular, but her Social Democratic party trails the centre-right National Coalition in the polls. Applying to NATO together with Sweden "made it easier for my party", says Antti Rinne, a former Social Democratic prime minister. Going it alone has raised hackles, though mostly in Sweden, where some of its people feel abandoned.

The biggest change is the return to the days of a hostile eastern border. In Suomussalmi, relations had recently been friendly. Finns crossed into Russia to buy cheap petrol; Russians bought holiday houses and took summer jobs picking berries on farms. Now that is over. Most Finns do not dislike Russians as individuals: the Raate road has monuments to the Ukrainian and Russian soldiers who died there. The Russian state is another matter.

"Everybody in Suomussalmi has a Plan B for if Russia comes," says Jenni Mikkonen, who manages a local pub and grew up playing in the trenches left by the war. Ville Hiltunen, one of her patrons, roams the woods with a metal detector digging up war relics, a popular pastime in the area. In a compartment behind his garage he keeps a miniature museum of vintage gear: Soviet helmets; a Finnish submachine-gun. An old metal plate bears words scratched in Russian: "No food. Dying." "People here know what it is to live near Russia," says Mr Hiltunen. "It's nothing new." ■

The House of Prussia

The Kaiser's family gives up on its stuff

BERLIN

A failed Hohenzollern attempt to win over the public

IT SEEMED ODD for Prince Georg Friedrich of Prussia to stage an event at a press centre used by the government, since Prussia has no government: indeed, it has not existed since 1947. The event on March 9th was billed as a presentation of historical research on the Hohenzollerns, the family that ruled the kingdom and later all of Germany. Improbably, it made headlines. The prince, a great-great-grandson of Kaiser Wilhelm II, announced he was dropping two claims for restitution of property seized by the Soviets after the second world war.

Georg Friedrich clearly hoped to rehabilitate the House of Prussia's image after years of negative press. But even conservative-leaning publications failed to applaud him. The *Frankfurter Allgemeine Zeitung* called it "a [public-relations] debacle—and what else is monarchy other than public relations?" The 46-year-old prince had launched the claims in 2014, citing a law that entitles descendants of victims of Soviet expropriation to get back mobile property (furniture, paintings and so forth) as well as compensation—unless their ancestors actively supported the Nazi regime.

There lies the rub. The eldest son of the last Kaiser, also named Wilhelm, supported the Nazis, hoping they would restore him to the throne eliminated after the first world war. He called on the public to vote for them in 1932, and during the war he sent Hitler congratulatory telegrams after victorious battles. Historians dispute whether Wilhelm's support mattered; Hitler hardly needed the backing of a would-be monarch. But it was probably enough to disqualify Hohenzollern restitution claims. The family could yet find out: it may not have dropped quite all of them.

Charlemagne | The cucumber Saudis

The Dutch discover the perils of being a farming superpower

Visitors to dairy farms are always well advised to watch their step. Those inspecting the three dozen milking cows kept by Minke van Wingerden and her team have more to fear than landing in manure: the entire farm is set up on a floating platform, docked a 20-minute cycle ride away from Rotterdam's central railway station. One wrong step and you will wind up spluttering in the Nieuwe Maas river—as a couple of the cows have discovered (firemen fished them out of the harbour). Forget vistas of the placid Frisian countryside: these animals spend their days overlooking tankers and trucks unloading wares at Europe's biggest port. Throughout the day *schijt*-scooping robots scour the milking area, keeping it clean. On two lower floors of the barge, the cows' output is variously turned either into cheese or fertiliser.

Ms Van Wingerden's Floating Farm is the apotheosis of centuries of Dutch thinking about how to grow lots of food in a crowded corner of northern Europe. Since the age of Rembrandt and Vermeer, land has been reclaimed from the sea and windmills erected to drain the plains. Town-size greenhouses are built to grow tulips or vegetables. A food shortage during the second world war convinced the Dutch they needed to grow as much as their fields could manage. Calvinist industriousness turned the Netherlands into an unlikely agrarian powerhouse: with more than €100bn ($108bn) of annual farming sales overseas, it is the world's biggest exporter of agricultural products after America, a country more than 250 times its size. Some of that is re-exported imported food. But the Dutch make twice as much cheese per head as France.

Two questions have long dogged Dutch farming. The first is whether quantity made up for quality: having tasted the tomatoes, cucumbers and chilies grown in its hyper-efficient greenhouses, one may be forgiven for not being able to tell them apart. The second is whether its approach made any sense. The Netherlands is the most densely inhabited country in the EU bar tiny Malta; officials joke it is a city-state in the making. Efficient as its farmers may be, the sector is a footnote to the modern Dutch economy, employing just 2.5% of workers. Countries usually pick between having lots of farms or lots of people. The Dutch approach was to have their Gouda and eat it. That has landed both farmers and politicians in a heap of natural fertiliser.

Limits to the Dutch model of turbo-farming have been suspected for decades. Already in the 1980s, authorities realised that importing lots more animal feed would result in lots more animal excrement. Yet the limits of the land kept being tested: each acre of Dutch farm supports four times as many animals, by weight, as others in Europe. The result of all those digestive tracts has been a surfeit of excreted nitrogen, a key nutrient for plants but one that in excessive quantities can destabilise ecosystems. Cars and industry emit nitrogen compounds too. All this has contributed to damaging the soil and polluting waterways. Flora that thrive on excess nitrogen have been killing off plants that would otherwise manage to compete for resources. That in turn has knock-on effects, not all of which scientists understand.

Ernst van den Ende of Wageningen University, a food-research hub, says there is not much wrong with individual Dutch farms, which are often models of sustainability. The problem is that there are too many of them, pumping out too much nitrogen. For more than a decade there have been efforts (mostly ineffectual) to cut back such emissions to meet EU rules that protect nature reserves. But in 2019 things came to a head. A decree from the highest Dutch court gave wishy-washy laws unexpected bite. Every activity that led to nitrogen being produced—including the construction of buildings, roads and other infrastructure—would henceforth require cuts in nitrogen elsewhere. The country has a housing shortage, but new building has been throttled by the rule. Daytime speed limits on motorways were cut from 130kph to 100kph in the hope that lower emissions might let other bits of the economy keep going. Schiphol airport, one of the world's busiest, resorted to buying farms to shut them down so planes could take off.

The crisis has been all-encompassing. A bastion of free-market liberalism in Europe has morphed into something akin to a planned economy, with a "Minister for Nature and Nitrogen Policy" as lead commissar. In the end, it became clear a piecemeal approach would not cut it. Last year a sweeping plan to halve nitrogen emissions by 2030 was unveiled. The government said it would pay €24bn to buy out as many as 3,000 big emitters, meaning mostly farms. Livestock numbers would be cut by nearly a third. The era of ever-increasing agricultural exports was over.

Sacred cows, this way please

Strangely, even in a country bursting at the seams, picking people over cows turns out to be politically fraught. The prospect of buyouts or expropriations fuelled farmer protests across the country. (Think burning hay-bales and nitrogen-rich animal matter dumped on motorways.) Last week the revolt hit the ballot box. A newish party representing farmers triumphed in local elections on March 15th, topping the polls that elect the nationwide senate as well as regional governments. The farmers' party got 1.5m votes, 19% of the total, in a country that employs just 244,000 people in agriculture. City-dwellers backed it out of a nostalgic attachment to farmers and resentment against nagging authorities. Whether the government can force through its nitrogen cuts is up in the air.

Other countries are heading for nitrogen crises too; neighbouring Belgium, also pretty crowded, already has one. But the wider parallel is with carbon emissions, which Europe plans to cut to "net zero" by 2050. That will demand adaptations well beyond what the Dutch have experienced with nitrogen. The Netherlands, a generally well-run place, has made a hash of adapting its economy to ecological constraints it knew about for decades. That does not bode well for everyone else. ■

Reforming the British state

Repairing the Rolls-Royce

A tumultuous decade has weakened Britain's civil service. Can it be fixed?

REFORMING THE BRITISH STATE

IN 2011 THE Ministry of Justice (MOJ) decided to roll out a new GPS-enabled ankle tag for criminals, in the hope of reducing reoffending. The design included 900 bespoke requirements and was split between four contractors—a high-risk structure in which the MOJ had no experience. Officials and suppliers fell out; managers came and went; hazy assumptions went unchallenged. In 2022 the programme was canned at a cost of £98m.

The tagging fiasco, and the ministry responsible for it, provide a lens into the way Britain is governed. The MOJ is the civil service in microcosm. It has a mid-sized budget. It comprises some 6,000 staff at its HQ, a brutalist citadel near the Houses of Parliament, and 80,000 more spread across the prison service, the courts service and a panoply of smaller agencies.

As well as grappling with a big backlog in courts, and a bulging prison population, it oversees 24 schemes classified as "major projects" for their scale or complexity, the second-highest of any government department. The MOJ is rather like the British army of the 1950s, says one veteran official. It keeps day-to-day order well enough and is good at mobilising in a crisis such as covid-19. But it struggles to innovate. And on big projects, calamity can strike.

That judgment jars with the reputation of Britain's civil service as the Rolls-Royce of public administrations. In an index based on an aggregation of earlier studies, the Blavatnik School of Government in 2019 ranked it the best out of 38 countries. Polls suggest it is more trusted than bankers, politicians or the priesthood. In the past decade it has lugged Britain through Brexit, a pandemic and the European energy crunch. Paying a tax bill or renewing a licence online is usually a slick experience; the number of digital wonks has risen by 79% since 2016.

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They are among some half a million officials, spread through two dozen central departments and scores of subsidiary agencies. The civil service is one partner in what Peter Hennessy, a constitutional historian, calls "the governing marriage": a relationship between elected ministers and permanent officials, conducted largely in private. In exchange for job security and political neutrality, the civil service gives the government of the day candid advice and loyally enacts its policies.

Yet the civil service is also institutionally weakened and vulnerable. A model of government first conceived in the mid-1850s is now under immense strain. "It is the greatest single beneficial reform of the 19th century, apart from the extension of the franchise," says Lord Hennessy. "But more of it is in flux now than it has been for a very long time."

Old problems—the churn of officials and inadequate evaluation—have been compounded by new ones, such as inexperienced officials and hostility from some ministers. Together, they threaten the civil service's authority, confidence and capability. "We have no automatic right to exist," said Simon Case, its head, in a recent speech. Can the Rolls be fixed?

▸▸

Some complaints are very long-standing. In 1968 a report by Lord Fulton declared that Whitehall was dominated by the "philosophy of the amateur" and ill-equipped for the age of atomic energy and the jumbo jet. "The ideal administrator is still too often seen as the gifted layman who, moving frequently from job to job within the service, can take a practical view of any problem, irrespective of its subject matter, in light of his knowledge and experience of the government machine."

Churn remains a problem. Nearly 5% of the civil service moved to a new department within Whitehall in 2021, according to the Institute for Government (IfG), a think-tank. Add the people who left the service, and 2021 saw the highest rate of turnover in a decade. That saps expertise. Worse, says Gareth Davies, the head of the National Audit Office (NAO), a spending watchdog, too often "there's no sense of ownership" over big projects. "People are reasonably confident they'll be gone before any adverse consequences are obvious." The MoJ's tagging project had five "senior responsible owners", the official accountable for a project, in six years.

In part, churn reflects career incentives. Mid-ranking policy officials talk of being encouraged to move every 18 months to gather experience, pay and promotion. But it also reflects a deeper malaise, argues Jonathan Slater, a former permanent secretary (the most senior department official) at the Department for Education: a culture which prizes the ability to "handle" ministers and "fix" political problems. John Kingman, a former Treasury bigwig, has claimed there is a "disdain" for deep knowledge. A pyramidal structure of older managers at the top and younger generalists at the bottom does not provide a home for well-paid, experienced experts.

The second problem is that the civil service has a surprisingly poor picture of whether its programmes work. Just 8% of major projects worth a total of £432bn ($529bn) had robust impact-evaluation plans in place, the Cabinet Office concluded in 2019. The MoJ had little evidence as to whether tagging reduced reoffending before the tagging scheme was launched or by the time it was scrapped, a NAO report concluded. "It is not yet an embedded culture that says 'you won't have much chance of your proposal being approved unless you've marshalled the available evidence in a robust way'," says Mr Davies. Political incentives are to blame: "Nobody likes being associated with something evaluated and shown to be unsuccessful."

These long-running problems have been exacerbated in recent years. In 2010, when David Cameron took office, headcount stood at 481,000. Austerity saw it shrink by a fifth by 2016, to 384,000, with many of the cuts falling on lower-ranking staff. Over the next six years these cuts were fully reversed, owing largely to a recruitment drive of senior officials to cope with the demands of Brexit and covid-19.

The result of this ebb and flow has been to make the senior ranks much bigger, but also younger and worse paid, according to an analysis by the IfG. Salaries of the senior civil service fell by 23% in real terms over the period. It is likely that some civil servants have been promoted before time to manage morale and boost salaries at a time of meagre pay settlements. The influx has given the service more energy and less cynicism, says Alex Thomas of the IfG. But it also means it is a "less experienced, and probably a less authoritative and confident civil service," he says.

That confidence matters more than ever. The "governing marriage" works best when the partners trust each other but years of political crisis have driven them apart. Brexit sowed in the minds of many Tories the notion that the civil service was hostile to their goals. This suspicion hardened during the tenure of Boris Johnson. The polite version of this critique came from Michael Gove, a veteran minister who in Fultonesque terms said the civil service had too few mathematicians and too much flitting between jobs. The balder version came from Dominic Cummings, an aide who had long wanted to smash "the blob" and kept a "shit list" of senior officials. Half a dozen permanent secretaries resigned or were squeezed out, among them Mark Sedwill, the cabinet secretary; Mr Slater; and Sir Richard Heaton, the boss of the MoJ.

In October 2022 Liz Truss, Mr Johnson's short-lived successor, followed suit with calamitous effect by firing Sir Tom Scholar, the head of the Treasury, as a pre-emptive strike against "Treasury orthodoxy". All the while Tory MPs produced a drumbeat of denigration: civil servants were variously woke, obstructive and work-shy. The years of chaos brought a rapid turnover of ministers, too: the MoJ has seen six prisons ministers since the election of 2019.

Mr Case's leadership has added to the unease. Critics think he was much too pliant in the face of Mr Johnson's rule-breaking (see next story) and accuse him of failing to defend colleagues such as Sir Tom.

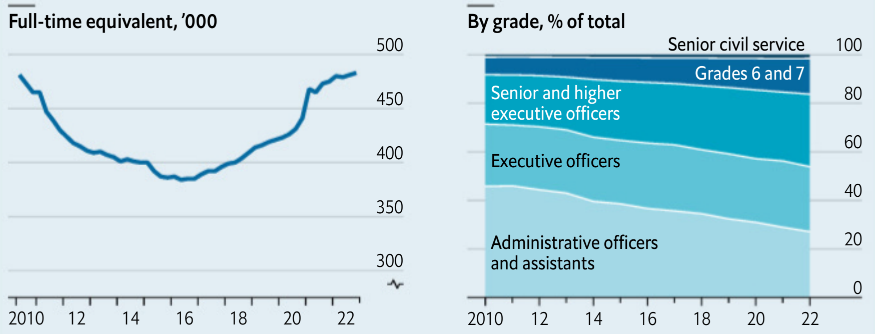
Morale has dipped as a result. Just 32% of civil servants agree that their pay is reasonable compared with pay at other organisations, according to the most recent staff survey from 2021. Thousands of civil servants, including courts and parole staff, have gone on strike. In exit interviews four in ten senior civil servants resigning from the service in 2020-21 cited how "fairly treated, respected or valued" they felt as reasons for their departure. The MoJ is emblematic. In 2021 the department had the highest rate of turnover of the highest-ranking civil servants of any department, at 28%. Dominic Raab, the current justice secretary, is subject to an official investigation into claims he bullied and demeaned staff. He denies the claims.

What does it matter if some officials are unhappy? Because, say experienced Whitehall-watchers, the delicate compact at the heart of Britain's system of government is being degraded. Telling a secretary of state what they don't wish to hear is never easy. Candid advice becomes that much rarer in a civil service that is inexperienced, criticised, poorly led and short on evidence of what works. In the staff survey in 2021, just 54% of civil servants agreed that it is "safe to challenge the way things are done". For good ministers, that lack of candour can be frustrating. For bad ones, it is a recipe for blunders—which degrades their trust in civil servants even more. Rival sources of advice, such as think-tanks and party gurus, fill the void and the civil service's authority is eroded yet further.

Rishi Sunak has lowered the temperature. On taking office in October, the prime minister emailed staff to thank them for their work and has made clear to officials he does not regard the civil service as "the problem". The fast stream, a prestigious graduate programme paused by Mr John-

Juniors out, seniors in

Britain, civil-service employment



Sources: ONS; Institute for Government

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son, has been reopened. There is a recognition among some ministers that if they want a more professional civil service, they must professionalise themselves first.

"It matters to Rishi. The prime minister is someone who is very keen to see us reforming the way we do government," says Jeremy Quin, the minister for civil-service modernisation. Departments face significant real-term spending squeezes in the years to come but Mr Sunak has dropped Mr Johnson's blunt goal of firing 91,000 civil servants. The government is focusing on redoubling reforms led by Francis Maude, a minister under Mr Cameron, in which "functions" (finance, procurement, human resources and the like) were professionalised and centralised. Whitehall's ability to spot when major projects are stalling and to get them back on track is improving, says Mr Quin.

Some of Mr Gove's reforms are coming to fruition, albeit slowly. Rules that came into force in September 2022 are intended to wean Whitehall off the overuse of management consultants. A training course for ministers handling infrastructure projects is being run by the Saïd Business School in Oxford. "Capability-based pay" will be introduced for the most senior ranks from next April, in an effort to reward expertise and to slow churn. A new "evaluation task force" has been launched to improve standards; the government says proper evaluation will be in place for every major project by 2025. At the MOJ the number of analysts on electronic-tagging programmes has been increased from three to 17. Ministers hope to expand the practice of tagging by 2030 through off-the-shelf tech.

More radical ideas are in the ether, all reflecting the idea that the civil service needs more independence from ministers. A new legal duty to uphold propriety and inform Parliament about breaches of laws and ministerial codes would strengthen the hand of permanent secretaries concerned by ministers' behaviour, argues Jill Rutter in a paper for the Bennett Institute for Public Policy. Lord Maude, who is conducting a further review of the civil service, is interested in the case for a "stewardship" agenda, which would make permanent secretaries accountable for their department's long-term health.

More radically, Mr Slater proposes opening the black box of officials' advice to ministers. In Whitehall transparency is limited. Permanent secretaries can put on record their concern that schemes are unfeasible or a waste of money: in April 2022, the permanent secretary of the Home Office registered his concern that a scheme to send asylum-seekers to Rwanda wouldn't be a deterrent to migrants. Contrast that with New Zealand, where officials' detailed policy reports are published a month after a decision is taken by politicians.

Mr Slater proposes going even further and publishing before a decision is taken, as tends to happen in English local government. A more open regime would be uncomfortable for an institution that is unused to scrutiny and that prizes being close to ministers. But Mr Slater argues that external scrutiny would force up the quality and candour of advice. It is hard to simply say what the minister wants when the world is listening in. (It would also have the happy side-effect of revealing when ministers have disregarded good advice.)

Whether to make use of that advice would still be ultimately the choice of ministers. Even a Rolls-Royce cannot drive itself. But it can run better. "The concentration of grey cells in Whitehall is still very, very considerable," says Lord Hennessy. "But it's an asset which is underused, underappreciated and in the worst case parodied. It's a terrible waste." ■

Partygate

End of the clown show?

Boris Johnson now provides more theatre than threat

BORIS JOHNSON is an honest man. It is possible to tell this by the sheer number of times he declares his honesty. In his written submission to the committee of MPs investigating whether he intentionally misled Parliament over Partygate, the word "honest" popped up around 20 times in one form or another. In a three-hour hearing on March 22nd he offered yet more honesty, at one point even "hand on heart." And little speaks more of honesty than declaring your honesty 20-odd times in two days.

Mr Johnson first came to national attention on a BBC comedy show called "Have I Got News for You". Watch it now and those episodes feel more like a prophecy: the privileges committee, with clapping. Everything is there: the hair; the bluster; the accusations of wrongdoing. And, of course, the honesty. When asked then about an alleged crime, he replied: "Honestly, I don't remember."

It didn't matter then. He was so funny, so blond, so charismatic. As the show's host at the time said: "Everyone's going to love you." And large parts of Britain did—as an MP, then as mayor of London, then all the way to Downing Street. And Mr Johnson loved the country back, so much so that he became the first Britain prime minister whose exact number of children is unknown.

I did not have relations with that cake

The act seems now to be drawing to a close. The committee hearing was another panel, another show. But the mood of "Have I Got Pixellated Photos For You" was less jolly. The boozy Downing Street gatherings during lockdown are known as the Partygate scandal. But the aura of the hearing was pure hangover. Mr Johnson's mood alternated between testy ("complete nonsense", he spat at one point) and the kind of repentant abstinence that follows overindulgence. A man who once said he was pro having cake and pro eating it emphasised that, at his 2020 birthday gathering, "the cake remained in its Tupperware box".

Mr Johnson did attempt a little bonhomie: he talked of "electric forcefields" and "higgledy-piggledy corridors". But his audience was less interested in higgledy-piggledy corridors than in pages 30, 40 and 41 of the evidence bundle: might he refer to it? Above all they referred him to the photographs—an entire appendix of awkwardness, with bottles of wine and crisps and a regrettable takeaway on a silver platter.

There were other regrettable takeaways for Mr Johnson from all this. If the committee finds against him, it may set in train a process that ends in him leaving Parliament. But whatever its verdict, he looks done for. On the day he fended off questions about alcohol and trestle tables, MPs approved the Northern Irish deal negotiated by Rishi Sunak. His polling is down; his chances of hitting the political heights again are very slim. He might admit as much, if he were being honest with himself.

Bagehot | Censory deprivation

The nervousness of British publishers is rotsome for free speech. But change may be afoot

WHY STOP at fatness? If you are going to put a red pen through Roald Dahl—as his publisher, Puffin, did recently—there are so many better bits to choose. The sensitivity readers contented themselves with excising such words as "fat", "flabby", "ugly" and "Kipling". But Dahl doesn't merely offer sexism, racism and colonialism; in his adult fiction you can find sins so frankly filthsome and swigpilling there has yet to be an -ism coined to cover them. There is violence, voyeurism and an unforgettably frightsome story in which a scorpion collector accidentally has sex with a leper. Not for nothing did his family call him "Roald the Rotten" and—more bluntly—"Roald the Bastard".

Something seems to be changing in British publishing. You can see it in the sheepish announcement from Puffin after news of its edits prompted a backlash, that Roald the Revolting will still roll off the presses unaltered, alongside the works of Roald the Redacted. You can see it, too, in almost-silenced books that are now thriving. "Time to Think", a book by Hannah Barnes about the Tavistock's gender-identity clinic in London, which referred children as young as nine for puberty blockers, was rejected by 22 publishers. Swift Press, a nimble newcomer, took it on and it made the bestseller lists. People in the industry suggest that the red pen is being wielded less freely. As one publishing executive puts it, there is a sense that things "had gone too far". (Though since this person did not want to be quoted by name, not far enough.)

A change is overdue. The editing of Dahl by Puffin, an imprint of Penguin, was a symptom of something frogglehumping in the publishing world, but far from the only one. Authors have been dropped; books have been buried; people have lost jobs; sensitivity readers have been employed to ensure modern morals are adhered to. James Bond has even been edited to make him less vile—the literary equivalent of trying to make water less wet.

There is a line of argument that says that this isn't really a problem. Suppression of speech, this argument runs, is the preserve of totalitarian, Orwellian-style states and institutions that use force to stop people speaking out. In a country like Britain, speech is still free. This is pure gobblefunk and Orwell's "1984" is the wrong Orwellian work to understand why.

Better by far to turn to an introduction Orwell wrote for "Animal Farm". Orwell had finished his satire on the Soviet Union—which many consider his masterpiece—in 1943, whereupon it was promptly rejected by four publishers. As with Ms Barnes's 22 rejections, some offered reasons. One publisher pleasingly suggested Orwell might want to rethink the pigs. Having swine as the ruling class might "give offence…particularly to anyone who is a bit touchy, as undoubtedly the Russians are". Orwell kept the pigs; "Animal Farm" sold half a million copies in two years.

He later reflected on all this in that introduction. There is, he wrote, a "veiled censorship" in British publishing. "At any given moment there is an orthodoxy, a body of ideas which it is assumed that all right-thinking people will accept without question." It is "not exactly forbidden to say this, that or the other, but it is 'not done' to say it". Anyone who tries to do so "finds himself silenced with surprising effectiveness". They still do. A book on colonialism by Nigel Biggar, an emeritus professor of theology at Oxford University, was welcomed by its publisher, Bloomsbury, as a work of "major importance" and then postponed, apparently indefinitely, because "public feeling…does not currently support the publication of the book". It is now out under a different publisher.

What is striking is how apparently mild the sanctions are for speaking out. People think, as one author puts it, that you are afraid of Twitter death threats. You aren't: what really terrifies you is that your colleagues will think a little less of you. Most people do not require the threat of being burned at the stake to shut them up; being flamed by their peers on Twitter is more than enough.

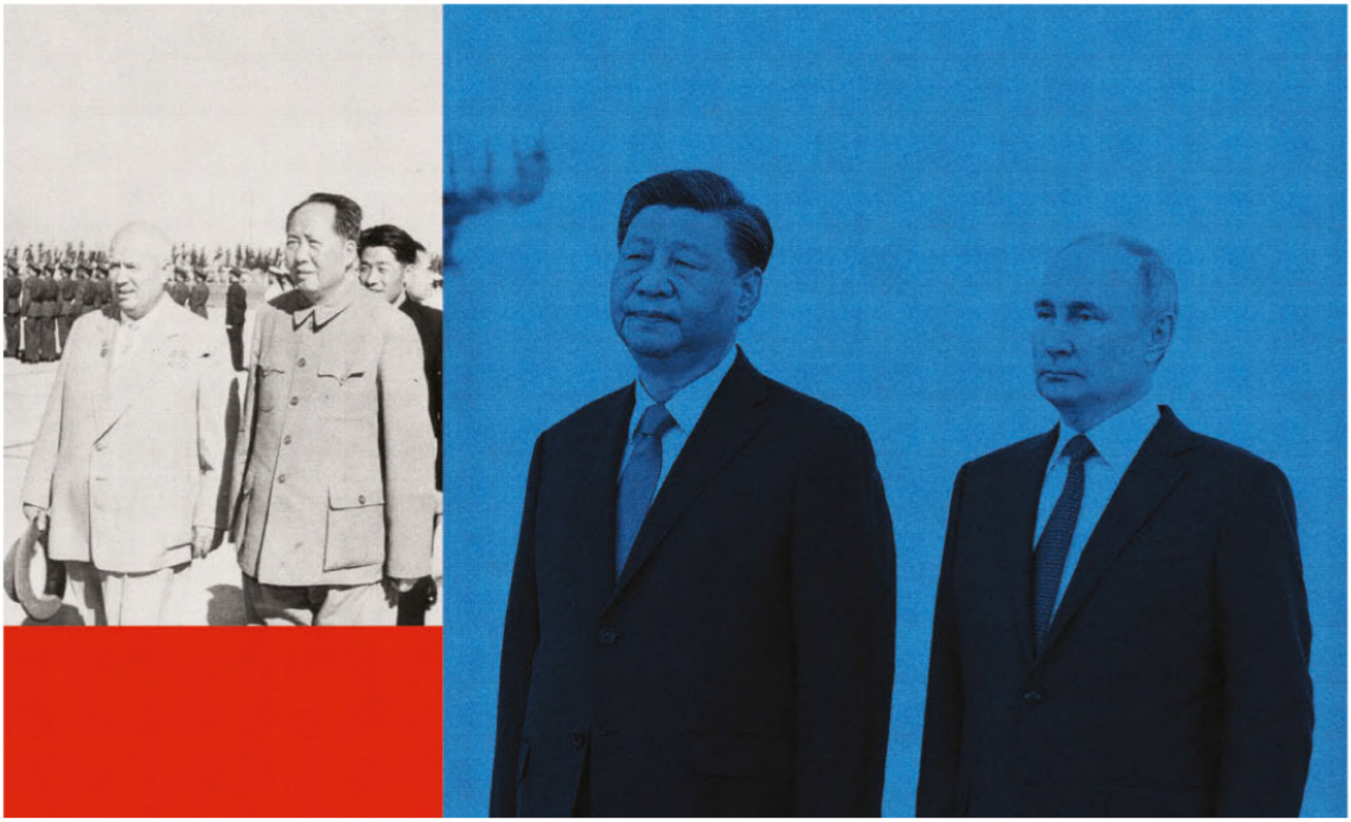
This is true of more typically Orwellian states, too. When Anne Applebaum studied the Sovietisation of central Europe, the historian found political conformity was "the result not of violence or direct state coercion, but rather of intense peer pressure". Publishing, an industry in which every third person is called Sophie, seems particularly susceptible to such pressure.

All this involves no laws, no police, nor even any obvious threats. Polite people write polite emails and books are politely buried. "The sinister fact about literary censorship in England", Orwell wrote, "is that it is largely voluntary." To go against that ominously amorphous "public feeling" is deeply uncomfortable. Ms Barnes found writing her book about the Tavistock's clinic hard not because she thought it was wrong but because "I thought: 'People are not going to like me.'" Publishers are equally nervy. In the name of looking likeable they panic and pre-empt offence: they cull the pigs; drop the book on colonialism; cut the foulsome bits.

Swinebuggling stuff

The problem with all this nervousness—this desire-to-look-niceness—is that it has very nasty results. In "Fahrenheit 451", a novel by Ray Bradbury, a society has taken to burning all books lest any cause offence. As one character explains: "Don't step on the toes of the…second-generation Chinese, Swedes, Italians, Germans, Texans, Brooklynites, Irishmen…." This book-burning wasn't mandated by the government. "There was no dictum, no declaration, no censorship to start with, no! Technology…and minority pressure carried the trick." Now the books have all gone. Now "thanks to them, you can stay happy all the time."

Penguin, incidentally, offers an audiobook of "Fahrenheit 451". Perhaps its executives might be encouraged to listen to it before they get their red pens out. Then again, they might be tempted to edit it as well; after all, Puffin took the words "Japanese" and "Norway people" and "Yankee-Doodles" out of Dahl. Best be sure we can all stay happy all the time. ■



Xi in Moscow

Seizing the opportunity

MOSCOW

China's president went to Moscow not as a peacemaker, but as an opportunist

Ever since the second world war global politics has been moulded by the "strategic triangle" between America, China and Russia. Co-ordination between Mao Zedong and Josef Stalin in the early 1950s fuelled American determination to halt the spread of communism. That led to America fighting wars in Korea and Vietnam, its commitment to defend Taiwan, and many proxy conflicts elsewhere.

A decade later Mao's schism with Nikita Khrushchev prepared the ground for an eventual American rapprochement with China. That brought covert Chinese assistance in the fight against Soviet forces in Afghanistan, which helped end the cold war. It also underpinned the decades-long run of economic growth that transformed China into a global power.

Now another shift is under way. On March 22nd Xi Jinping, China's leader, completed a three-day visit to Moscow, his first since Russia's invasion of Ukraine last year. Coming just days after the International Criminal Court (ICC) issued an arrest warrant for Mr Putin, it was an emphatic display of solidarity. Mr Xi even invited Mr Putin to visit China later this year and endorsed his running for re-election in 2024.

Mr Putin reciprocated with an elaborate charm offensive, proffering two banquets in the Kremlin, praise for Mr Xi's diplomatic initiatives and backing for him over Taiwan. "We're now witnessing changes that haven't been seen for more than a century, and we're pushing them forward together," Mr Xi told Mr Putin, after the two leaders had polished off a state banquet of crab, marbled beef and borscht in a 15th-century banqueting hall built for the tsars.

Calling each other "dear friend", the two leaders signed a statement that voiced opposition to the American-led global order and pledged deeper ties in trade, military exercises and space. In private, their talks probably covered much more besides. American officials believe Mr Xi is weighing Russia's request to supply it with lethal weapons, including artillery shells and attack drones, for use in Ukraine. If Mr Xi agrees, it would draw China into a proxy war with NATO.

But in China's telling, Mr Xi was there as a peacemaker, and with no offer of arms. He repeated his call for a ceasefire, and again promoted a 12-point peace plan that China had first proposed in February. Mr Putin praised the plan, and committed to starting peace talks with Ukraine "as soon as possible". The statement also repeated Chinese calls to uphold the UN Charter and to avoid the use of nuclear weapons (although it failed to repeat Mr Xi's previous statements opposing threats of their use).

To offset Western criticism of his Moscow visit, Mr Xi is expected to follow it with virtual talks with Ukraine's president, Volodymr Zelensky. That will play well in many developing countries, and among Westerners keen to ease tensions with China. As evidence of Mr Xi's peacemaking credentials, Chinese officials point to their country's role in an agreement between Saudi Arabia and Iran, announced on March 10th, to re-establish diplomatic ties.

Yet Mr Xi's true intentions are hidden in plain sight. While professing neutrality, he has refused to condemn Russia's invasion or its soldiers' atrocities. His officials and China's state-controlled media continue to push the Kremlin line that the war was caused by NATO expansion, a trope repeated in the joint statement. It also condemned NATO's involvement in Asia and America's bid to strengthen its alliances there in preparation for a potential Chinese attack on Taiwan.

None of the declarations and agreements signed during Mr Xi's visit made any mention of weapons. But even if China stops short of arming Russia, its non-military support will help sustain the war. Although China largely avoids violating Western sanctions on Russia, it helps Russia offset their impact by buying more of its oil and gas, and selling it more electronics and other goods.

You call that a plan?

China's peace plan, meanwhile, is a nonstarter for Ukraine and its Western backers. It advocates an end to Western sanctions without requiring Russia to withdraw from conquered territory. The plan sticks to Kremlin talking-points in arguing that security "should not be pursued at the expense of others", nor by "expanding military blocs". This echoes Mr Xi's "Global Security Initiative", which he proposed last year as an alternative to the American-led "rules-based international order".

Mr Xi's stance unsettles some in China's elite. It shreds the country's claim to be pursuing a foreign policy based on respect for national sovereignty, and undermines a guarantee given in 2013 to help Ukraine if it were to be threatened with nuclear attack. It makes Chinese attempts to sever Europe from America much harder. Chinese strategists are clear-eyed, too, about Russia's unpredictable politics and dismal economic prospects. Arming it would expose China to severe sanctions from America and the European Union, its two biggest trading partners, hobbling efforts to revive its economy. Talk of a new cold war would harden into reality.

Yet Mr Xi's calculations are dominated by his conviction that China is locked in a long-term confrontation with America that may lead to a war over Taiwan. If so, Russia represents an indispensable source of energy, military technology and diplomatic support. A Russian defeat in Ukraine would embolden America and its allies. If Mr Putin's grip on power slipped, instability on China's vast northern border with Russia could follow. The worst-case scenario for China would be the arrival in the Kremlin of a pro-Western leader tempted to help America to contain Chinese power, in a mirror image of China's own strategic shift in the 1970s.

"That is the nightmare for China," says Li Mingjiang, an expert on Chinese foreign policy at Nanyang Technological University in Singapore. For Mr Xi America represents the greatest potential threat, and China has no other big power on its side to help resist Western economic or military pressure. "Russia is the only option," he says. "It's the same logic as in the cold war, when Mao saw the Soviet Union as China's number-one enemy, and decided to pursue rapprochement with the United States."

Mr Xi's strategic considerations are underpinned by a personal connection with Russia. His father, Xi Zhongxun, was a revolutionary who later oversaw the Soviet experts who helped build up Chinese industry in the 1950s. The elder Xi visited Moscow in 1959. He returned full of admiration, bearing Soviet-made toys that delighted his six-year-old son.

The younger Xi's interest in Russia seems to have deepened when he was sent to a remote village at the age of 15, during the Cultural Revolution. The books he read there are still on display, including "War and Peace", a selection of Lenin's writings, an account of Soviet battles in the second world war and "How the Steel was Tempered", a novel about a man who fights the Germans, joins the Bolsheviks and becomes an ideal Soviet citizen.

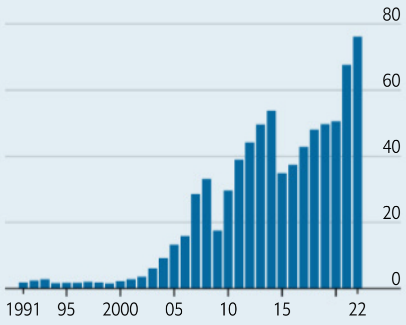
Mr Xi was not alone in his regard for Russia. Senior Chinese military officers developed close ties with their Russian counterparts after Western governments placed arms embargoes on China over the crushing of pro-democracy protests around Tiananmen Square in 1989. (They remain in place.) Since then, China has bought tens of billions of dollars' worth of Russian weapons.

In the decade before Mr Xi took power in 2012, he also appears to have been influenced by leftist academics and fellow "princelings" (as offspring of Communist Party leaders are known) who became disillusioned with the West, especially after the financial crisis in 2007-09. Inspired by Mr Putin, then near the height of his power, they began to see Russia as a potential partner and to question Chinese historians' conclusions that the Soviet Union collapsed because of problems dating back to Stalin. Instead, they blamed Mikhail Gorbachev and his liberalising reforms.

By the time Mr Xi assumed office, he and his advisers were already bent on closer alignment with Russia. He chose Moscow for his first trip abroad, and hinted there that the two countries would work together against the West. "Our characters are alike," he told Mr Putin. Mr Xi has since met him some 40 times, far more than any other leader, apparently bonding over common disdain for democracy and fears of American encirclement.

Supply-chain management

China, merchandise exports to Russia, $bn



Source: Refinitiv Datastream

Sneak attack

Some of the shine may have come off the pair's relationship in the wake of Mr Putin's invasion. In February 2022, just before Russia attacked, Mr Putin visited Mr Xi in Beijing for the opening ceremony of the Winter Olympics. The two sides declared that their partnership had "no limits". Whatever the pair discussed, Chinese officials appear to have been wrong-footed by the scale of the invasion. They had no prepared talking-points or plans to evacuate Chinese citizens. Soon after the invasion, China's deputy foreign minister responsible for Russia was transferred to the radio and television administration.

Chinese perceptions of Russian military prowess have also changed since the war began. Previous Russian successes in Crimea, Georgia and Syria had convinced Chinese generals that Mr Putin was a great strategist in command of an effective army. Drills and exercises between the two countries' armed forces have focused on interoperability. Recent Chinese military reforms have copied those in Russia. But Chinese commanders have been shocked by Mr Putin's miscalculations over Ukraine and the lacklustre performance of Russian soldiers and weaponry.

Disillusion is not confined to military types. In December Feng Yujun, a prominent Russia expert at Fudan University, in Shanghai, made a scathing speech in which he noted that Russia had annexed millions of square miles of Chinese territory between 1860 and 1945. The Soviet Union then pushed China to distance itself from the West and to enter the Korean war, causing "countless" Chinese casualties, he argued. Modern Russia had not accepted its weakness relative to China and was obsessed with rebuilding its empire, he added, concluding: "The weakest party in the China-America-Russia triangle always benefits the most." Such views are common among Chinese scholars and business figures familiar with Russia. But their impact on decision-making is limited in a system that depends increasingly on the will of one man.

Late last year some Western officials expressed hope that China was edging away from Russia, especially after Mr Putin promised to address China's "questions and concerns" about Ukraine when he met Mr Xi in Uzbekistan in September. Mr Xi, without explicitly mentioning Mr Putin's nuclear sabre-rattling, then voiced disapproval of any such threat or attack. For a while, Mr Xi seemed to be mixing support for Russia with efforts to ease tensions with America. But that stopped in February after America shot down a high-altitude Chinese balloon that it said was part of a global spying operation.

In practical terms, there is little evidence that China is distancing itself from Russia. In 2022 Russian exports of crude oil and gas to China rose, in dollar terms, by 44% and more than 100% respectively. Chinese exports to Russia increased by 12.8% (see chart on previous page). Shipments of microchips—which are used in military as well as civilian kit, and which the West has tried to deny to Russia—more than doubled. Some Chinese firms have provided items for direct military use, such as satellite images, jamming technology and parts for fighter jets, although so far only in small quantities. Some of these deals may pre-date the war, or involve entities already under American sanctions.

China has also continued to conduct joint military drills with Russia. In November Chinese and Russian strategic bombers flew on a patrol over the Sea of Japan and the East China Sea, and landed on each other's airfields for the first time. On the anniversary of Russia's invasion of Ukraine in February, Russian, Chinese and South African warships were practising together in the Indian Ocean. And on March 15th Russia, China and Iran began naval drills in the Gulf of Oman.

Pressing the advantage

Rather than downgrade China's relationship with Russia, Mr Xi appears to be strengthening it, while exploiting Russia's weakened position. One result of Mr Xi's visit appears to have been a more robust assurance that Mr Putin would back him in a war over Taiwan. In the joint statement, Russia repeated its assertion from February 2022 that the island is Chinese territory, but added a line saying it "firmly supports China's measures to safeguard its sovereignty and territorial integrity".

Mr Xi has won access to cheap energy, too. Mr Putin claimed a "near agreement" to build "Power of Siberia 2", a new gas pipeline to China that would divert supplies once earmarked for Europe. (The joint statement's wording was more circumspect, suggesting China is bargaining hard on the price). Economic agreements foresee Russia helping Chinese firms take the place of departing Western ones.

Although it was not discussed publicly, Mr Xi has also gained leverage to seek high-end Russian military technology, such as surface-to-air missiles and nuclear reactors designed to power submarines—and to press Mr Putin to withhold or delay supplies of similar items to Russian customers that have territorial disputes with China, such as India and Vietnam. Russia could also help upgrade China's nuclear arsenal, or work on a joint missile-warning system.

Even as China extracts concessions its officials are keen to keep Mr Xi's hands clean, especially given the ICC's arrest warrant. They are wary of moves by America and its allies to portray China as explicitly backing Mr Putin's war. In February, while China's foreign minister was in Moscow, Joe Biden, America's president, made an unannounced visit to Kyiv. Something similar happened on March 21st. As Mr Xi was being feted at the Kremlin, Japan's prime minister, Kishida Fumio, visited Ukraine. He laid a wreath at a church in Bucha, the site of a massacre by Russian forces of hundreds of Ukrainian civilians.

Mr Xi's proposed call with Mr Zelensky, long advocated by European and American officials, may mute some criticism of his stay in Moscow, especially if the Ukrainian leader makes positive noises about China's peacemaking potential. But Mr Xi probably has little immediate interest in mediation.

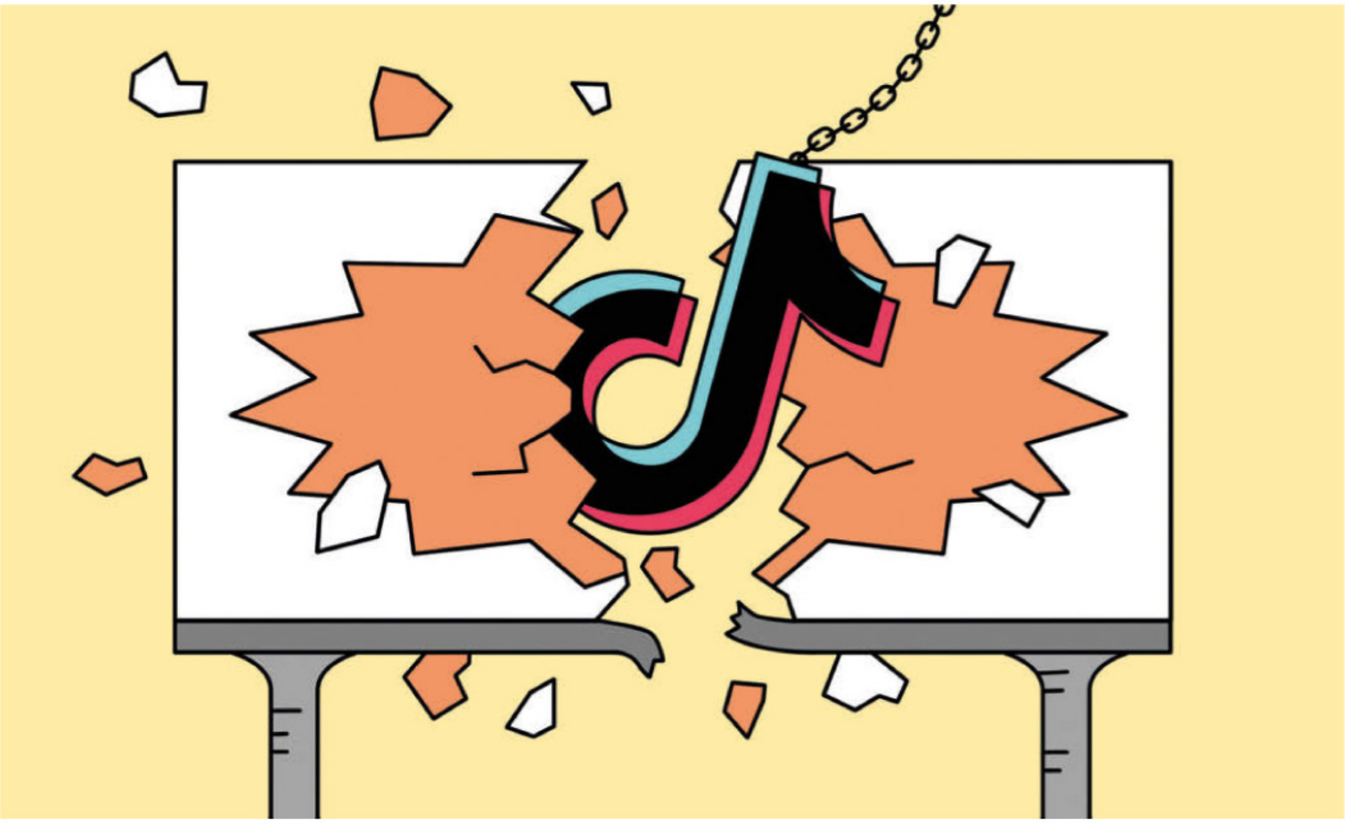
Chinese officials calculate that neither Russia nor Ukraine wants peace yet, since both believe they can make further advances on the battlefield. And China's record is in any case rather mixed. The Iran-Saudi deal was brewing for some time before China stepped in. Its efforts as an intermediary in North Korea, Afghanistan and Myanmar have been poor. Mr Xi's posturing is more about burnishing his international image while undermining America's, and positioning China to take advantage of whatever emerges from the war.

As for Russia's request for weapons, China is probably undecided. American officials say there is no evidence yet of such shipments. Their recent allegations may have been pre-emptive warnings. But China may see another opportunity to gain leverage. In public statements and private discussions its officials increasingly draw a link with Taiwan. "Why does the US ask China not to provide weapons to Russia while it keeps selling arms to Taiwan?" asked Qin Gang, China's foreign minister, on March 7th.

If Mr Xi does decide to arm Russia, he may do so quietly. China has a long history of covert arms exports. In the 1980s it secretly supplied Chinese-made variants of the Soviet AK-47 assault rifle to American-backed mujahideen insurgents in Afghanistan. Providing Russia with artillery shells would be easy: Chinese firms produce similar models and can remove markings, or add ones suggesting they originate elsewhere, says Dennis Wilder, a former American spy who used to track Chinese arms exports. China could also supply weaponry via third countries, like North Korea or Iran, or provide them with incentives to ship their own arms to Russia. America might detect such moves, but proving them will be harder. "All China needs is plausible deniability," says Mr Wilder.

But the quiet approach has limits. To alter the course of the war might require China to supply bigger, more sophisticated weapons, such as attack drones. Those would be harder to conceal, especially if any were to fall into Ukrainian hands. Public exposure would undermine Mr Xi's efforts to present himself as a peacemaker.

In the end Mr Xi's decision could depend on how the war plays out, and especially on the result of a Ukrainian offensive that is expected in the coming months. It could hinge, too, on the level of tensions between China and America over Taiwan, suggests Alexander Korolev, who studies China-Russia relations at the University of New South Wales in Australia. "If, by sending weapons to [Russian troops in] Ukraine, China can control the level of escalation and keep Russia going for as long as needed, then it can keep the West busy," he says. "That makes it more feasible to deal with Taiwan." ■



The ad business

How TikTok broke social media

Whether or not it is banned, the app has forced its rivals to adopt a less lucrative model

IS TIKTOK’S TIME up? As the social-media app’s chief executive, Shou Zi Chew, was getting ready for a grilling before Congress on March 23rd, after *The Economist* went to press, TikTok’s 100m-plus users in America were fretting that their government was preparing to ban the Chinese-owned platform because of security fears. Their anguish contrasts with utter glee in Silicon Valley, where home-grown social-media firms would love to be rid of their popular rival. With every grumble from Capitol Hill, the share prices of Meta, Pinterest, Snap and others edge higher.

TikTok’s fate hangs in the balance. But what is already clear is that the app has changed social media for good—and in a way that will make life harder for incumbent social apps. In less than six years TikTok has weaned the world off old-fashioned social-networking and got it hooked on algorithmically selected short videos. Users love it. The trouble for the platforms is that the new model makes less money than the old one, and may always do so.

The speed of the change is astonishing. Since entering America in 2017, TikTok has picked up more users than all but a handful of social-media apps, which have been around more than twice as long (see chart 1 on next page). Among young audiences, it crushes the competition. Americans aged 18-24 spend an hour a day on TikTok, twice as long as they spend on Instagram and Snapchat, and more than five times as long as they spend on Facebook, which these days is mainly a medium for communicating with the grandparents (see chart 2).

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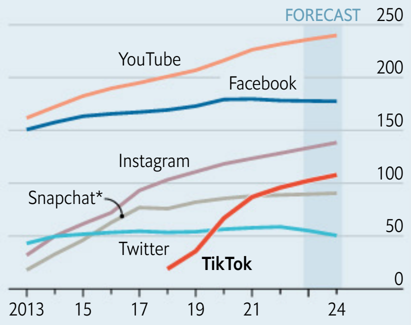
TikTok’s success has prompted its rivals to reinvent themselves. Meta, which owns Facebook and Instagram, has turned both apps’ main feeds into algorithmically sorted “discovery engines” and launched Reels, a TikTok clone bolted onto Facebook and Instagram. Similar lookalike products have been created by Pinterest (Watch), Snapchat (Spotlight), YouTube (Shorts), and even Netflix (Fast Laughs). The latest TikTok-inspired makeover, announced on March 8th, was by Spotify, a music-streaming app whose homepage now features video clips that can be skipped by swiping up. (TikTok’s Chinese sister app, Douyin, is having a similar effect in its home market, where digital giants like Tencent are increasingly putting short videos at the centre of their offerings.)

The result is that short-form video has taken over social media. Of the 64 minutes that the average American spends viewing such services each day, 40 minutes are spent watching video clips, up from 28 minutes just three years ago, estimates Bernstein, a broker. However, this transformation comes with a snag. Although users have a seemingly endless appetite for short video, the format is proving less profitable than the old news feed.

TikTok monetises its American audience at a rate of just $0.31 for every hour the typical user spends on the app, a third the rate of Facebook and a fifth the rate of Instagram (see chart 3). This year it will make

Tikking up

United States, monthly active users, m



Source: Insider Intelligence *Mobile only

about $67 from each of its American users, while Instagram will make more than $200, estimates Insider Intelligence, a research firm. And it is not just a TikTok problem. Mark Zuckerberg, Meta's chief executive, told investors last month that "Currently, the monetisation efficiency of Reels is much less than Feed, so the more that Reels grows…it takes some time away from Feed and we actually lose money."

The most comforting explanation for the earnings gap is that TikTok, Reels and the other short-video platforms are immature. "TikTok is still a toddler in the social-media ad landscape," says Jasmine Enberg of Insider Intelligence, who points out that the app introduced ads only in 2019. Platforms tend to keep their ad load low while getting new users on board, and advertisers take time to warm to new products. "You can't really wave a magic wand and declare that your new ads are 'premium' without any performance history to back it up, so they start at the end of the line," says Michelle Urwin of Skai, an ad-tech firm.

Meta points out that it has been here before. Instagram's Stories feature took a while to get advertisers signed up but is now a big earner. Meta is monetising Reels more aggressively and expects it to stop losing money around the end of this year. But the firm acknowledges that it will be a long time before Reels is as profitable as the old news feed. "We know it took us several years to bring the gap close between Stories and Feed ads," Susan Li, Meta's chief financial officer, said on an earnings call last month. "And we expect that this will take longer for Reels."

Some wonder if the gap will in fact ever be closed. Even mature video-apps cannot keep up with the old social networks when it comes to monetising their users' time. YouTube, which has been around for 18 years, makes less than half as much money per user-hour as Facebook or Instagram, estimates Bernstein. In China, where short-form video took off a few years before it did in the West, short-video ads last year monetised at only about 15% the rate of ads on local e-commerce apps.

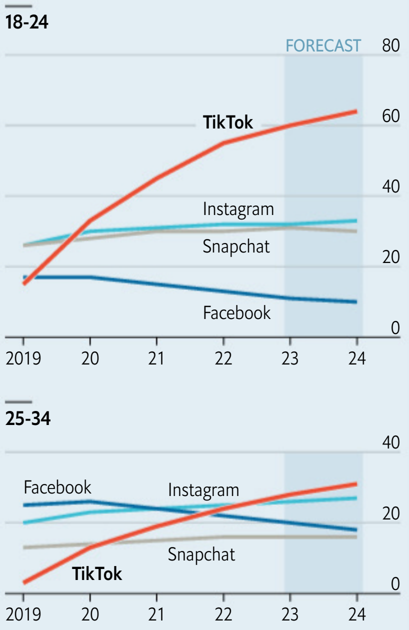
For one thing, the ad load in video is inescapably lower than on a news feed of text and images. Watch a five-minute YouTube clip and you might see three ads; scroll Instagram for five minutes and you could see dozens. Watching video also seems to put consumers in a more passive mood than scrolling a feed of friends' updates, making them less likely to click through to buy. Booking 1,000 impressions for a video ad on Instagram Reels costs about half as much as 1,000 impressions for an ad on Instagram's news feed, reports Tinuiti, a big marketing agency, implying that advertisers see Reels ads as less likely to generate clicks.

Auctions for video ads are less competitive than those for static ones, because many advertisers have yet to create ads in video format. Big advertisers prize video ads (and report record engagement on TikTok, where products have gone viral with the hashtag #TikTokmademebuyit). But the long tail of small businesses from which social networks have made their billions find video spots tricky to produce. Just over 40% of Meta's 10m or so advertisers use Reels ads, the company says. Getting the remaining 60% to create video commercials may be made easier by artificial intelligence. One senior executive imagines a near future in which a small retailer can create a bespoke video ad using only voice commands. Until that moment arrives, half the long tail is lopped off.

Short-video apps are also hampered by weaker targeting. For audiences, part of the appeal of TikTok and its many imitators is that users need do no more than watch, and swipe when they get bored. The algorithm uses this to learn what kinds of videos—and therefore ads—they like. But this guesswork is no substitute for the hard personal data harvested by the previous generation of social networks, which persuaded users to fill in a lengthy profile including everything from their education to their marital status. The upshot is that many advertisers still treat short-form video as a place for loosely targeted so-called brand advertising, to raise general awareness of their product, rather than the hyper-personalised (and more valuable) direct-response ads that old-school social networks specialise in.

Zero to 60

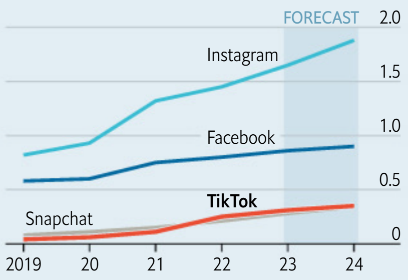
United States, time spent per day, minutes
By age group of users



Source: Insider Intelligence

Less value ad

United States, social media
Advertising spending for every hour each user spent on platform*, $



Source: Insider Intelligence *Aged 18 and over

Here, at least, TikTok's imitators have an advantage over TikTok itself. Using a trove of data built up over a decade and a half, when there were few rules against tracking users' activity across the wider web, Meta already knows a lot about many of the users watching its videos and can make well-informed guesses about the rest. If a new, unknown user watches the same videos as a group who are known to be rich female graduates with children, say, it is a good bet that the new user has the same profile. TikTok says it has made big investments in its direct-response ads, including new tools for measuring their effectiveness. But it still has catching up to do. "Meta are leveraging their history," says Mark Shmulik of Bernstein.

Social apps will not be the only losers in this new, trickier ad environment. "All advertising is about what the next-best alternative is," says Brian Wieser of Madison and Wall, an advertising consultancy. Most advertisers allocate a budget to spend on ads on a particular platform, he says, and "the budget is the budget", regardless of how far it goes. If social-media advertising becomes less effective across the board, it will be bad news not just for the platforms that sell those ads, but for the advertisers that buy them. ■

Big law in India

The cost of legal admission

MUMBAI

India loosens restrictions on foreign lawyers. Sort of

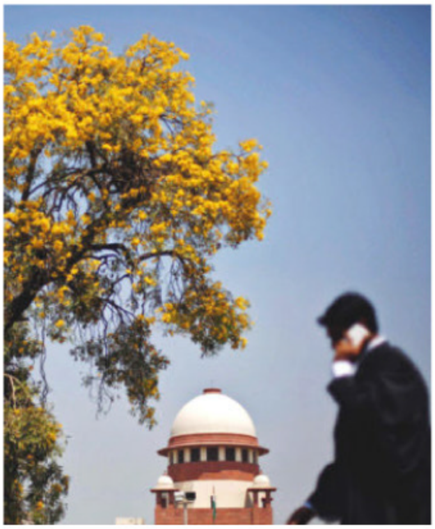
Protracted legal battles are common in India. One of the longest-running of all concerns who is allowed to practise law in the country. On March 10th the Bar Council of India quietly released an announcement that, though armed with inevitable caveats, removed some of the restrictions that have for decades kept most foreign lawyers from plying their trade on Indian soil. "With this, the legal practice of India enters a new era," says Vyapak Desai of Nishith Desai Associates, a rare Indian law firm with offices abroad.

Since independence in 1947 India has, in the name of self-sufficiency, created barriers to entry for outsiders in many industries. As elsewhere in the world, the legal profession was deemed particularly sensitive. So sensitive that, in 1961, the Advocates Act required all lawyers to be Indian citizens. At the urging of the central bank, the Foreign Exchange Regulation Act of 1973 created an exemption. Foreigners were still barred from representing clients in courtrooms but they could advise them on things like contracts and mergers. By the 1990s a handful of foreign firms had set up shop in India, including giants like White & Case, a big New York firm.

Then, in 2009, the Supreme Court ended the exemption. Foreign lawyers keen to maintain a toehold in India's growing economy resigned themselves to establishing "best friend" relationships with local law firms. This enabled non-Indian lawyers to pay Indian clients brief visits. Still, to avoid the attendant hassle, many preferred to meet instead in London, Singapore or, more recently, Dubai.

Under the new rules, which have received the government's imprimatur, foreign lawyers can stay in India for 60 days a year—or permanently, if they register with the authorities. They may advise foreign firms in India on matters of international law. They still may not appear before any tribunal, regulatory authority or other forum with "trappings of a court". With one exception: foreigners will be able to represent clients before Indian panels in cases of international commercial arbitration.

This carve-out hints at the reasons behind the Bar Council's reform, notes Burzin Somandy of Somandy & Associates, a law firm in Mumbai. As the council itself explains in its decision, "experience and facts show" that multinational companies prefer going to foreign arbitration panels to have their Indian claims heard. The hope seems to be that foreign businesses would keep such proceedings in India if they can be represented by their foreign counsel. And that, in turn, would boost confidence in the Indian legal system—and, by extension, India's economy. Robust legal logic? The jury is out. ■



Big law hopes to blossom there, too

Sportswear

No Yeezy answers

BERLIN

Can Adidas ever catch up with Nike?

A few years ago it appeared as though Adidas might challenge Nike for the title of the world's biggest maker of sportswear. The American giant was well ahead, to be sure. But its three-striped German rival had pep in its step. Under Kasper Rorsted, who took over as chief executive in October 2016, Adidas's revenues shot up—by a cumulative 30% or so in the first three years of his stewardship. A lucrative deal from 2013 to make and sell trainers designed by Kanye West, an American rapper, was paying off handsomely; by 2021 Mr West's Yeezy line contributed 12% of Adidas's overall shoe sales. In August that year the company's market capitalisation reached €67bn ($79bn), more than twice what it had been five years earlier.

Today Adidas looks like an also-ran. Revenues were more or less flat in the final three months of 2022, year on year. The company disclosed a quarterly operating loss of €724m. Far from catching up, it is falling further behind Nike, which on March 21st reported quarterly sales of $12bn, 14% higher than the year before and twice those of Adidas, and boasts cushy 13% operating margins worthy of its Air soles. Adidas's market value is back down to €25bn, one-seventh that of Nike. Investors today appear to have more confidence not just in the swoosh but in Puma, Adidas's smaller domestic rival (see chart).

Some of Adidas's cramps are the result of factors beyond its control. Inflation pushed up supply-chain costs. The company had to wind down its sizeable business in Russia after the country's warmongering president, Vladimir Putin, sent tanks into Ukraine in February 2022, provoking an exodus of Western firms from the Russian market. And the increasingly erratic behaviour, including anti-Semitic outbursts, of Mr West (who now insists on being called Ye) led Adidas to cut ties with him in October last year. That left it with millions of unsold pairs of Yeezys, worth some €1.2bn. Unless these are somehow repurposed, the company expects to end 2023 with its first annual operating loss in 30 years, of perhaps €700m. The prospect of a recession in Europe and North America, and uncertainty over China's economic recovery, present another drag.

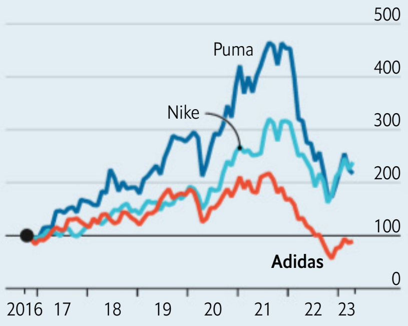
Bad luck is not the whole story, however. Mr Rorsted's focus on efficiency and cost, though in some ways welcome, came at a price. He treated Adidas's retail partners shoddily, preferring to focus on selling directly to consumers through the company's own shops. He also neglected investments in innovation. Mr Rorsted would have made a fine chief financial officer, says Florian Riedmüller of the Nuremberg Institute of Technology. Instead, he "is an example of what happens when you put the wrong person into the top job".

Adidas's board thinks it has now found the right one in Bjorn Gulden, who took over as CEO at the start of the year. The Norwegian former professional footballer had helped to turn round Puma, from which he was poached.

Mr Gulden's first task is to decide what to do with all the Yeezys (options include trying to sell them, possibly handing the ▸▸

Three stripes and you're out

Share prices, October 1st 2016=100, $ terms



Source: Refinitiv Datastream

proceeds to charity, donating them to a good cause, such as the victims of the recent earthquakes in Syria and Turkey, or just binning them). A bigger long-term challenge, says Aneesha Sherman of Bernstein, a broker, is what to do about China. Last year Adidas’s Chinese sales fell by 36%. China’s strict pandemic lockdowns and boycotts of Western brands that expressed concern about China’s treatment of its Uyghur Muslim minority both played a role; Nike’s Chinese sales, too, declined in its latest quarter, by 8%.

But unlike Nike, China’s bestselling sportswear brand, which has deftly adapted to local tastes, in particular a growing love of basketball, Adidas has been caught flat-footed. Its Chinese sales have been overtaken by those of Anta, a fast-charging local rival. Now it risks losing the number-three position to another, Li Ning.

Mr Gulden calls 2023 a “transition year” that will smooth the path to rebuilding a profitable business in 2024. He plans to cut the dividend, reduce discounts on unsold kit, mend relations with retailers, and invest more in products and in the Adidas brand. That is a start. But if Adidas really wants to catch up with Nike, it will need to pick up the pace—and then some. ■

Ryanair

Caution is a headwind

Every setback is an opportunity for Europe’s biggest airline

Michael O’Leary has given up the attention-grabbing stunts and outrageous proposals that used to ensure headlines for him and his airline, Ryanair. No more badmouthing customers, suggesting standing-only tickets or fees for using the toilet on planes, and dressing up as a court jester or a leprechaun. Now that Ryanair is Europe’s biggest carrier—one in five flights on the continent comes courtesy of its 550 aircraft—the demands to appear “slightly more corporate” outweigh the need to be “running around looking like an ’eejit’”, he says, almost wistfully.

Indeed, nowadays the low-cost carrier’s achievements speak for themselves with no need for gimmicks. Between its stock-market debut in 1997 and 2019 passenger numbers rose by an average of 19% a year. While most rivals struggled to regain lost ground, Ryanair emerged from the covid-19 pandemic stronger. Summer schedules that will see the number of daily flights increase from 2,000 to 3,000 from March 29th have already attracted strong bookings. This could boost passenger numbers to 168m in the financial year to March, easily surpassing the pre-covid figure of 149m. Ryanair pulled this off, Mr O’Leary says, “partly through luck and partly through bravery”.

On the lookout for silver linings

It certainly took a bit of pluck to resist the job cuts that other airline bosses executed when covid-19 grounded many of their flights. Ryanair kept on most staff on reduced wages and rotated crews on the few remaining flights to keep their licences current. It also started hiring again before anyone else. It could afford to do so thanks to a strong balance-sheet built on a business model of ultra-low-cost flying: rock-bottom fares filling planes on routes between the cheapest airports, with extra charges for everything else (except toilets). As Aviation Strategy, a consultancy, notes, the company also renegotiated an order for 135 of Boeing’s 737 MAX narrowbodies and, if the rumours are true, ordered 75 more in 2020 at the height of the covid slump at just one-third of the list price.

Negotiations with Boeing over planes for the next phase of Ryanair’s expansion have stalled, as the aircraft-maker resists more discounts. But Mr O’Leary is confident that he can strike a deal in the next couple of years that will give him the planes to carry 300m passengers by 2035. He also reckons that after 30 years of excess capacity European aviation is in for a period of stability. Barriers to entry are already going up. One comes from the planemaking duopoly of Boeing and Airbus, whose order books are full until 2027. Another is higher interest rates and financial uncertainty, which makes it harder for newcomers to raise capital. The third is Ryanair itself, which deters rivals with fares based on the lowest costs in the industry—and with its knack for turning adversity to its advantage. “War, pestilence…something will go wrong,” concedes Mr O’Leary. But that is also “where opportunities come”. ■

Information technology

A digital gold mine

MUNICH

Process mining will help automate business long before chatbots do

Running a big business is complicated—often mind-numbingly so. Seemingly straightforward processes such as taking an order and receiving the payment can take thousands of possible paths, for example if an extra credit-check is needed, delivery has to be confirmed or a follow-up invoice sent. Though often necessary, the rigmarole complicates life for companies and slows things down. The resulting inefficiencies can cost businesses eye-watering amounts—between 20% and 30% of annual revenue, according to one estimate.

Software-makers are now finding ways to untangle the procedural spaghetti with the help of “process mining”. Its dull name notwithstanding, it is one of the fastest-growing areas of information technology (IT). It generated around $1bn in annual sales in 2022, reckons Gartner, an IT consultancy, and could treble in size in the next few years. Celonis, a German process-miner, recently raised $1bn at a valuation of $13bn, making it Germany’s biggest startup and its hottest tech success story since SAP, a business-software giant, was founded 50 years ago.

Consultants have long tried to model and optimise business processes for corporate clients. But their abstract models rarely reflected the complex reality. To get a better view, two things needed to happen. Firms had to be able to extract “log files” from IT systems, showing in minute detail how these systems operate. And algorithms had to be developed to process these data. Based on that, “you can automatically construct a model which shows you what is really happening,” explains Wil van der Aalst, a pioneer of the field now at RWTH Aachen University in Germany. That helps companies determine if, for instance, the extra credit check leads to unnecessary shipping delays or if the confirmation of delivery was registered in a timely fashion.

The notion of process mining isn’t new; Mr van der Aalst began writing modelling algorithms in the 1990s. But it took startups like Celonis to “industrialise these ideas”, says Bastian Nominacher, who co-founded the firm in 2011 with two fellow students in Munich. They stumbled upon process mining when they were asked to fix the dysfunctional IT system of a local broadcaster. It took them just three months to develop their first product. Instead of marketing it to business-process executives, as rivals had done before, they targeted senior management, promising big savings (which their software displays prominently on dashboards). Early customers included Siemens, a German engineering giant, where Celonis was able to hone its products. It then expanded abroad by striking a deal to piggyback on SAP's software (while rejecting takeover offers from the bigger tech firm). Today it employs 3,000 people.

Celonis's success (and 65% share of the small but rapidly growing market) has attracted competitors. Some 50 firms now offer a range of mining services, from checking whether a process works in practice as it should on paper, to measuring how it compares with the same process at other firms. Increasingly, process mining is being combined with artificial intelligence to predict where and when bottlenecks may occur. Celonis sells a comprehensive "execution-management system" that continuously tracks processes and tries to make them more efficient. Marc Kerremans of Gartner observes that the same tools that allow companies to optimise their processes for speed and efficiency are already being used by some firms to limit other types of waste, such as carbon emissions.

As with other much-hyped IT, more than one process-mining customer will end up disappointed, its chief executive wondering why it spent so much money for so little gain. But get it right, and the benefits can be substantial. When Siemens started working with Celonis in 2011 it counted 923,000 variants in its order-to-cash process alone. Today around 10m manual interventions, or a quarter of the total, have been eliminated. ■

Bartleby Time management

Flexible working is about schedules as well as locations

THE WORDS "flexible schedule" have an attractive ring to them. They conjure up a post-pandemic workplace full of motivated workers, organising their time in the most productive and family-friendly way, and of enlightened bosses, attracting and retaining talented employees. But flexibility is in the eye of the beholder. Its appeal can vary depending on the type of job someone is in, and on whose interests are being served.

If you are a blue-collar worker in an industry that operates in shifts, for example, flexibility sounds less like nirvana and more like chaos. For low-wage employees in restaurants and call centres, predictability is much more important than flexibility. Various American cities have introduced laws that, among other things, require employers to give workers a set amount of notice when setting their shift rotas.

Recent research by Kristen Harknett of the University of California, San Francisco, and her co-authors into the effect of "fair workweek" legislation in Seattle found that the requirement for two weeks' notice of schedules improved workers' reported sense of well-being. It can also improve performance. A study conducted by Joan Williams of the University of California College of the Law, also in San Francisco, and others concluded that introducing more stable employee schedules increased sales and productivity at The Gap, a retailer.

Certainty matters less for other workers. Research conducted by Donald Sull at the Massachusetts Institute of Technology and his co-authors found that predictable schedules had a marked effect on retention for blue-collar employees but did not affect white-collar ones. For desk-bound workers, the question is different: less whether flexible scheduling is appealing, more whose version of it prevails.

In the minds of some bosses, flexibility means that the work week has no defined boundaries. If their day starts at 4:30am on a Peloton, so can yours (minus the Peloton). If there is a blank space in your calendar, they grab it. If they have a question on a Sunday, they send it over by email—and then text, WhatsApp and voicemail, just to make sure that the weekend is genuinely disturbed. It is a wonder they don't turn up at the doorstep. A recent paper by Maria Ibanez of Kellogg School of Management at Northwestern University found that offering schedule flexibility on job adverts increases the likelihood that people will apply. But it also discovered that applications decrease markedly when adverts require workers to work at managers' discretion.

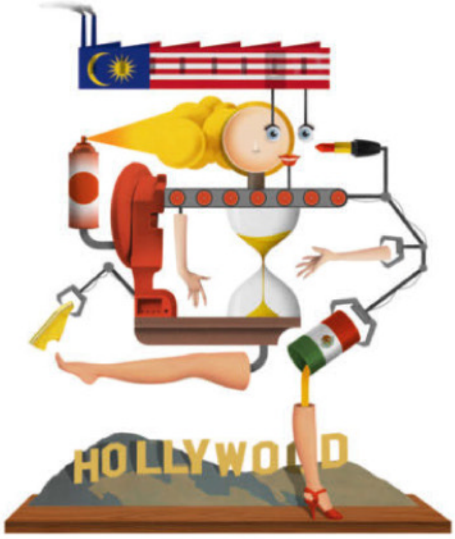
If workers balk at the boss's version of flexible scheduling, managers have a different worry: that giving employees too much control over their hours can backfire. Asynchronous working, which involves individuals contributing to a project in their own time, is all very well. But if teams are to function effectively then they sometimes have to work as a group. Managers can have perfectly legitimate reasons to contact employees at odd hours and to expect an immediate response. Compressing work weeks into four days might well give workers more time to pursue their love of kayaking but be less brilliant for customers.

Just as a blend of home and office is a sensible answer to demands for flexibility in location, a mixed approach is the right way to think about flexible schedules. Brian Elliott runs research into the future of work for Slack, a messaging firm. He specifies "core collaboration hours" for his own team, which is when most meetings and group activities happen. The company has instituted "focus Fridays", a day when there are no internal meetings and employees get on with their own tasks. If Mr Elliott does need to contact people outside working hours, he does so by text so they are not logged in all the time.

Boundaries of this sort will upset the absolutists. Managers have to think harder about interrupting people. Workers cannot pick and choose their hours at will. But a bit of thought can stop people from being their own worst enemies. For bosses, getting a swift answer to an unimportant question causes more trouble than it is worth. For employees, the flexibility to work outside standard hours is double-edged: Laura Giurge of London School of Economics and Kaitlin Woolley of Cornell University have found that choosing to work at a weekend or on a bank holiday reduces motivation precisely because these days are associated in their minds with non-work activities. For flexibility to be genuinely useful, it requires a firm skeleton.

Schumpeter | The Barbie paradox

Today's supply chains are neither near-shore nor off-shore. They are both



CHUCKLE IF YOU will but Schumpeter is looking forward to the first live-action "Barbie" film, due out in July. It is directed by Greta Gerwig, maker of "Lady Bird" and "Little Women", two movies with strong characters. Its trailer is a parody of "2001: A Space Odyssey", which suggests that, love Barbie or loathe her, she will be treated with a knowing wink.

It is a business turnaround story, too. If the film is a hit, it could crown a comeback for Mattel, one of the world's biggest toymakers, with brands like Barbie, Hot Wheels and Fisher-Price in its toy box. Five years ago it was in a funk, having lost three CEOs in four years, and a decades-old licence to produce dolls for Disney to its rival, Hasbro. Under Ynon Kreiz, its CEO since 2018, its cost base, balance-sheet, manufacturing footprint and morale have all improved. Last year, to the joy of staff, it won back the Disney contract. A Barbie red-carpet blockbuster would put icing on the cake.

So it was with a Ken-like spring in his step that your columnist travelled to Monterrey, in northern Mexico, this month to witness the way Mattel has consolidated its North American manufacturing operations into a single Mexican factory, its biggest in the world. He was hoping that Barbie, as well as becoming a star of the silver screen, could also become emblematic of a hot new trend in trade: near-shoring. Among the brightly coloured toys on the assembly line, there was sadly not a Barbie in sight. The only one on display was a prop in the Barbie Dreamhouse, a Tinseltown-like mansion that is one of the plant's flagship products. In fact, Barbie is not made in Mexico at all. She is still made in Indonesia and China (the first blonde doll was made in Japan in 1959).

That makes Barbie emblematic of something else entirely: the paradox of today's supply chains. As well as bringing some production closer to home, Mattel is maintaining global manufacturing operations in Asia. In a business landscape where demand is increasingly hard to forecast, the environment is fragile and the geopolitics unstable, this is the new reality for multinational manufacturers. They need to be global and local at the same time, even if this adds to the complexity of their supply chains.

Despite what American politicians might have you believe, the overriding rationale for near-shoring is not to decouple supply chains from China. As Roberto Isaias, Mattel's supply-chain chief, puts it, it is to provide flexibility. In some cases, it makes sense to shorten supply chains, in order to be more responsive to changes in consumer demand (see Americas section). In others, it is better to prioritise low-cost production, however far away the factories.

To understand Mattel's two-pronged strategy, consider Mexico's pros and cons. On the plus side, it adjoins the world's biggest market. It has a free-trade agreement with America and Canada, which eases the cross-border flow of goods and services. The cost of labour has become more competitive with South-East Asia (Chinese labour has been pricier for years). Its workers may not be as target-oriented as their Asian counterparts, but they tend to be more collaborative. Mexicans treat benign employers and colleagues like family, pitching in ideas to make things flow more efficiently, reports Mr Isaias (himself a Mexican). Mexico is also more or less immune to the rising Sino-American rivalry, which introduces an element of risk into all Asian supply chains.

Yet Mexico, too, presents some business risks. Though Mattel and Lego, its bigger Danish rival, have been in the Monterrey area for years, the toy industry has yet to nurture an ecosystem of lower-tier suppliers to rival that across the Pacific. The plastic resins used at Mattel's Monterrey factory, for example, are transported by rail from America and Canada. The toy moulds into which the hot plastics are poured come from China. Asian infrastructure also remains more solid than Mexico's. In Monterrey Mattel has no complaints about electricity and water supply, the reliability of which can be patchy. But Roberto Durán-Fernández of the Monterrey Technology Institute, a university, says that the recent flood of investments by carmakers such as Tesla to Nuevo León, Monterrey's home state, could exacerbate the strain on all manner of infrastructure, including roads and housing.

Mattel's Barbie supply chain illustrates these trade-offs. Her Dreamhouse is three storeys high, heavy and expensive—the sort of item that parents splash out for mostly at Christmas-time. Making it in northern Mexico means it can be shipped within 48 hours to Amazon, Target, Walmart and other retailers in America, enabling Mattel to wait until relatively late in the run-up to Christmas to gauge the strength of demand. The proximity to its market also reduces transport-related costs and emissions.

Barbie, the doll, is different. She is just 11.5 inches (29cm) tall and famously svelte. That makes her fairly cheap to ship in bulk from Asia to America. Demand for the dolls is relatively predictable, so the long trans-Pacific transport time poses less of a market risk. And she is intricately made, with well-coiffed locks and tailored garments—the beneficiary of a tradition of handiwork built up over generations in Asian factories. If demand spikes for particular dolls, Mattel can have Chinese subcontractors make them quickly while it ramps up its own production capacity.

Dreamsolution

For Mattel, then, near-shoring is still a work in progress. It is trying to develop local tooling suppliers to reduce the dependence on China. To become a near-shoring powerhouse, Mexico needs that, too. Over time, the hope is that industries from carmaking to toymaking will develop fully integrated supplier networks across the country, in order to reduce overcrowding near the border. As for Barbie, the optimal supply-chain strategy is probably to manufacture her as close to her biggest markets as possible, provided costs are kept reasonable, in order to respond quickly to consumer demand. Though Mr Kreiz, the CEO, no longer thinks of them as consumers. He thinks of them as fans. ■

Finance & economics

A narrow course

The roar gets nearer

WASHINGTON, DC

Policymakers face two nightmares: persistent inflation and market chaos

In his first speech as a governor of the Federal Reserve, Ben Bernanke offered a simple adage to explain a complex topic. The question was if central banks should use monetary policy to tame frothy markets—for example, raising interest rates in order to deflate property bubbles. His answer was that the Fed should "use the right tool for the job". It ought to rely, he argued, on regulatory and lending powers for financial matters, saving interest rates for economic goals such as price stability.

Two decades later, Mr Bernanke's doctrine is facing a stiff test in the reverse direction—as a framework for dealing with frazzled, not frothy, markets. On one flank the Fed is trying to douse the red-hot embers of a crisis that began with a run on Silicon Valley Bank (SVB). On the other officials face stubborn inflation, having failed to wrestle it under control in the past year. The tension between stabilising the financial system, which calls for support from the central bank, and reining in price pressures, which calls for tight policy, is extreme. But with two different sets of tools, the Fed is attempting to do both things. It is an improbable mission. And it is one that other central banks will have little choice but to emulate in forthcoming months.

On March 22nd, at the end of a two-day meeting of the central bank's rate-setting body, Jerome Powell, the Fed's chairman, laid out the logic of its extensive support for the financial system. "Isolated banking problems, if left unaddressed, can undermine confidence in healthy banks," he said. Yet he also maintained that the Fed could, and would, bring down inflation. "Without price stability, the economy does not work for anyone," he said. Putting policy where its mouth is, the Fed opted to lift rates by one-quarter of a percentage point.

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Before the meeting there was debate about whether officials would follow through with their ninth straight rate rise. Continued tightening had appeared a foregone conclusion when figures for February revealed inflation was still uncomfortably high, running at 6% year-on-year, three-times as fast as the Fed's target. But as panic spread following SVB's collapse, some prominent voices called for a pause to survey the effects on the economy. Or as Eric Rosengren, a former president of the Fed's branch in Boston, put it: "After a significant shock from an earthquake should you immediately resume normal life?"

In the end the Fed was undeterred. Having already lifted rates by nearly five percentage points over the past year—its steepest tightening in four decades—the latest increase of a quarter-point was, in numerical terms, piddling. But as a measure of the Fed's resolve, it was freighted with significance: it showed that Mr Powell and his colleagues believe they can use monetary-policy tools, especially interest rates, to tackle inflation, even when tightening poses risks to financial stability.

The Fed is willing to take this stance because of the range of alternative tools it can deploy in response to the mayhem in markets. Over the past couple of weeks, the Fed, acting in concert with other parts of the state, has raced to safeguard both assets and liabilities in the banking system. On the asset side, it has given troubled banks easier access to liquidity, offering to lend against the face value of government-bond holdings, even when market pricing is much lower. This has spared banks from having to realise losses that, in aggregate, ran to $620bn at the end of 2022—enough to wipe out nearly a third of equity capital in the American banking system.

As for liabilities, the Federal Deposit Insurance Corporation, a regulator, pledged to stand behind large uninsured deposits in SVB and Signature, another bank that suffered a run. Janet Yellen, the treasury secretary, has hinted at similar support if depositors flee smaller banks, though on March 22nd she said the Biden administration was not considering blanket insurance (which would require approval from Congress). Still, even with deposit insurance legally capped at $250,000, the message seems to be that accounts are safe no matter their size. The combination of the Fed's lending plus insurance has, for now, helped calm things down: after plunging by a quarter, the KBW index of American bank stocks has somewhat stabilised.

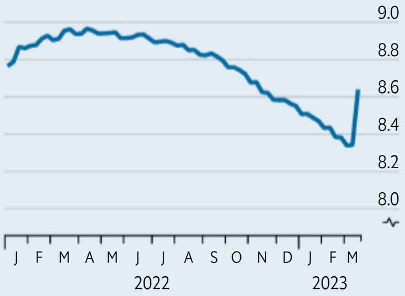
The Fed's nightmarish balancing act between inflation and financial stability looks very different from its past two crises. During both the global financial meltdown of 2007-09 and the sudden economic stoppage in 2020 when covid-19 struck, the Fed and other central banks threw everything they had at reviving the economy and propping up the financial system. On both occasions, financial and economic risks pointed sharply downwards. That may have contributed to doubts about the Fed's ability to walk and chew gum—to fight inflation and soothe market strains.

For Fed watchers, though, such cross-cutting actions look less surprising. In several cases—after a big bank collapse in 1984, a stockmarket crash in 1987 and a hedge-fund blow-up in 1998—the Fed briefly stopped raising rates or modestly cut them but resumed tightening policy before long. Economists at Citigroup, a bank, concluded that these experiences, not 2008 or 2020, are more pertinent today. Whereas markets are pricing in the possibility that the Fed may cut rates by half a percentage point before the end of this year, Citi's view is that the central bank may surprise investors with its willingness to keep policy tight so long as inflation remains high. Indeed, that is exactly what it has signalled. Along with raising rates on March 22nd, the Fed published a summary of its projections. The view of the median member of the Federal Open Market Committee is that they will raise rates by another quarter-point this year and only start cutting them next year.

Fed up

United States, Federal Reserve balance-sheet

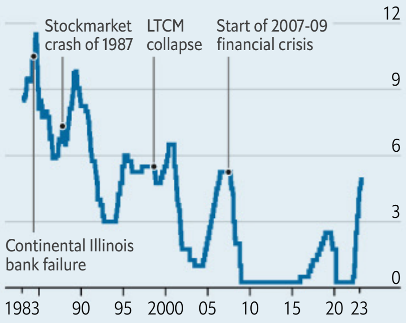
$trn



Source: Federal Reserve

Uncomfortably tight

United States, federal funds target rate, %



Source: Haver Analytics

Nevertheless, the neat division between monetary-policy and financial-stability tools can look blurrier in practice. Take the Fed's balance-sheet. As part of efforts to tame inflation, the central bank last year began quantitative tightening, letting a fixed number of maturing bonds roll off its balance-sheet each month, removing liquidity from the banking system. Between last May and the start of March it shrank its assets by about $600bn. Then in the course of a few days after the SVB rout, its assets grew by $300bn—a by-product of the credit it had provided to banks through its discount window and other emergency operations. Monetary wonks see a clear distinction: quantitative tightening is an enduring change to the Fed's balance-sheet, whereas the emergency credit will vanish when things normalise. But given that one of the main channels through which balance-sheet policies work is as a signal about the Fed's intentions, the potential for confusion is evident.

Another blurred line is the feedback between financial stability and monetary policy. Most of those who argued for a Fed pause were not crudely advocating that the central bank needs to rescue beleaguered investors. Rather, the more sophisticated point was that bank chaos and market turmoil were themselves tantamount to rate increases. Financial conditions—which include bond yields, credit spreads and stock values—have tightened in the past couple of weeks. Torsten Slok of Apollo Global Management, a private-equity firm, reckoned that the shift in pricing was equivalent to an extra 1.5 percentage points of rate increases by the Fed, enough to tip the economy into a hard landing.

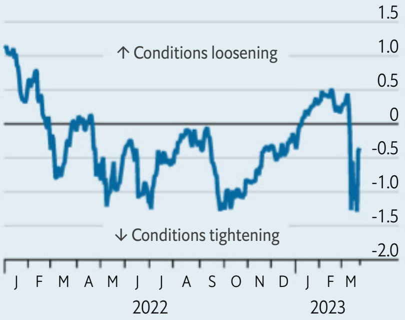
Not all agree the effect will be so large. Banks are responsible for about one-third of credit provision in America, with capital markets and firms such as mortgage lenders offering the rest. This could insulate firms from stricter lending standards at banks. Moreover, America's biggest banks account for more than half the banking system by assets, and they remain in strong shape. Yet even with these caveats, the impact is still real (see next story). As banks shore up their balance-sheets, both deposit and wholesale-funding costs are rising, which transmits the tightening to the financial system. Deutsche Bank thinks the lending shock, if minor, will shave half a percentage point off annual GDP growth. The Fed will probably now have to go less far to tame inflation.

Ultimately, its ability to treat instability and inflation on separate tracks depends on the severity of the banking crisis. "If financial issues are screaming, they will always, and rightly, trump slower-moving macroeconomic questions," says Krishna Guha of Evercore ISI, an advisory firm. The fact that America's emergency interventions in the past two weeks had gained traction, with deposit outflows slowing and markets paring their losses, is what enabled the Fed to turn its attention back to inflation. It is easy to imagine an alternative scenario in which the interventions failed, forcing it to desist from a rate rise.

This helps to explain the haste of Swiss officials to bring an end to the Credit Suisse drama. Central bankers know only too well that the uncontrolled collapse of such a big firm would send shock waves through the global financial system. In that case, they would have been under immense pressure to retreat from the fight against inflation. The right tool for the right job is an attractive way of delineating the objectives of central banking. Yet it only works so long as the job of restoring stability after a financial explosion is handled swiftly. ■

Sudden squeeze

United States, financial-conditions index



Source: Bloomberg

American finance

Don’t unleash the zombies

WASHINGTON, DC

Regional banks are holding up. Policymakers must not intervene prematurely

WHAT KIND of story is unfolding in the banking system? At first glance it would appear to be a tragic drama. In the past fortnight, four banks have met their end: two crypto lenders, the dominant bank in Silicon Valley and most recently a global systemically important bank. There have been 11th-hour interventions to protect customers, the creation of emergency-lending facilities and a marriage between two giant rival firms.

But look again and perhaps it is a science-fiction tale. Thomas Philippon, a professor of finance at New York University (NYU), is experiencing the vertigo of time travel. “It really feels like we are back in the 1980s,” he said at a recent talk. In that decade, high inflation prompted extreme monetary tightening, which was meted out with enthusiasm by Paul Volcker, chairman of the Federal Reserve. This undermined the health of “savings and loans” banks (S&Ls), consumer-savings institutions also known as “thrifts”, which mostly lent long-term fixed-rate mortgages. They faced a cap on the rate they could pay on deposits, which led to flight. And they held fixed-rate assets. When interest rates rose, these mortgages lost a considerable amount of value—essentially wiping out the thrift industry’s net worth.

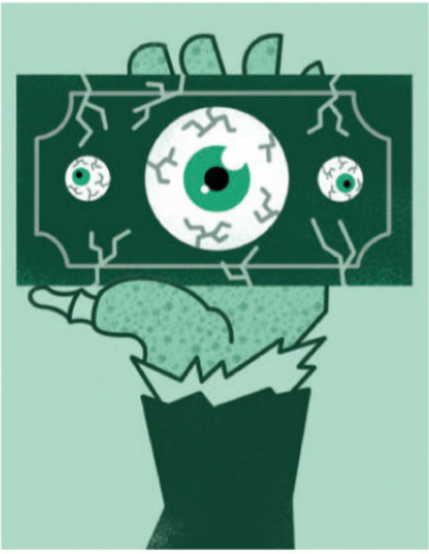
The dynamic will sound familiar to anyone who has paid attention to Silicon Valley Bank (SVB), where a rate shock slashed the value of its fixed-rate assets, prompting deposit flight and the institution’s collapse. The question now is whether what happened over the past fortnight was a brutal crunch or the start of a long, drawn-out process, as in the 1980s. The answer depends on the extent to which SVB’s problems are found elsewhere.

Start with the value of financial institutions’ assets. Banks regularly publish data on the losses they face on fixed-rate assets, such as bond portfolios. If these assets had to be liquidated tomorrow the industry would lose nearly a third of its capital base. Worryingly, one in ten institutions looks more poorly capitalised than SVB.

However, that is a big “if”. Such paper losses remain hypothetical so long as depositors stick around. A recent paper by Itamar Drechsler of the University of Pennsylvania and co-authors points out that bank deposits, which tend to be stable and interest-rate insensitive, are a natural hedge for the sort of long-term, fixed-rate lending that banks favour. The paper argues “banks closely match the interest-rate sensitivities of their interest income and expense”, which produces remarkably stable net-interest margins. This explains why bank share prices do not collapse every time rates rise, instead falling just as much as the broader market does.

The clearest evidence of flight is from two California-based banks. First Republic has reportedly lost $70bn in deposits—around 40% of its total as of the end of 2022—since SVB failed. Lots of the lender’s clients are wealthy individuals, who appear to be quickest to pull deposits. On March 17th First Republic arranged for 11 major banks to park $30bn-worth of deposits with it. It is now reported to be seeking additional support from financial institutions and possibly the government, too. On March 21st PacWest, another Californian lender, reported it had lost a fifth of its deposits since the start of 2023.

Banks suffering from deposit flight, such as First Republic and PacWest, can turn to other financial institutions for liquidity—or they can turn to the Fed’s newly expanded lending facilities. Official data indicate that American banks borrowed $300bn from various Fed programmes in the week to March 15th. There are some indications that most of the borrowing that was not done by already failed banks—namely, SVB and Signature—was done by west-coast banks, including First Republic and PacWest. Indeed, some $233bn of the total was lent by the San Francisco Fed, which covers banks west of Colorado. On March 21st PacWest revealed that it had so far borrowed a total of $16bn from various Fed facilities to shore up its liquidity. There was at most around $2bn-worth of borrowing from any of the Fed banks that support other regions of the country, indicating that banks in other states have yet to face debilitating deposit flight.



Policymakers must now wait to see if more banks come forward. It will be an uncomfortable pause. Regional and community banks play an important role in the American economy, and do about half the country’s commercial lending. Smaller banks are particularly dominant in commercial property. They hold nearly 80% of commercial mortgages provided by banks. The temptation, which American officials have been vague about, is to ensure smaller banks do not lose their deposits by guaranteeing the lot of them.

Aaaaarrgggghhhhh

This could create a grim scenario: a zombie-horror flick. At least that is the argument made by Viral Acharya, also of NYU. Banks with flighty deposit bases and losses on their assets are exposed to real losses. The worst-possible outcome, reckons Mr Acharya, is that “you leave the banks undercapitalised but you say that all depositors of weak banks are safe”.

This kind of intervention, he says, is common historically and “whenever this has been done—it happened in Japan, happened in Europe, routinely happens in China and India—you get zombie banks”. These have no capital, are backstopped by governments and “tend to do a tonne of bad lending”. He points to the Bank of Cyprus, which was undercapitalised in 2012: “They bet the entire house on Greek debt even when Greece was actually blowing up. Why did they do that? Well, they had stable deposits, no one was folding them up, they had no equity left—and then soon after you had a spectacular bank failure.”

The thrift crisis in America in the 1980s was ultimately so costly because the initial response—when the thrifts faced losses of around $25bn—was one of forbearance. Many insolvent thrifts were allowed to stay open as part of an attempt to allow them to grow out of their losses. But their problems only worsened. They, too, came to be known as “zombies”. Just like the Bank of Cyprus, these zombies went for broke by investing in riskier and riskier projects, hoping that they would pay off in higher returns. By the time the returns did materialise, the zombies were insolvent. The eventual bail-out cost taxpayers $125bn, five times what it would have done if regulators had bitten the bullet earlier. Allowing that kind of zombie flick to play out again would be a real tragedy. ■

European finance

United Banks of Switzerland

UBS saves Credit Suisse, if not the firm's bankers

At a press conference in Bern on March 19th the chairmen of Credit Suisse and UBS, the two great rivals of Swiss banking, announced a momentous but unhappy union. After days of haggling, and years of creeping despair, regulators tried to avert crisis by rushing through a tie-up of banks with combined assets worth twice as much as Switzerland's GDP.

The transaction concluded a bewildering descent for Credit Suisse, as its depositors and counterparties lost faith over the course of a working week. The banking system survived, even if 167 years of Swiss banking history did not. Now attention has turned to the impact of the hastily written terms of the deal—and the prospects for Switzerland's new banking supergroup.

The tie-up reflected the recent history of the two institutions. Both suffered in the global financial crisis of 2007-09, when UBS received a bail-out from the Swiss government. More recently, though, their paths diverged. As UBS steadied the ship, Credit Suisse sank lower in a series of high-profile mishaps. Last year the bank lost SFr7.3bn ($7.6bn), its worst performance since 2008. Credit Suisse's share price had fallen by 70% in the three years before the deal; that of UBS had more than doubled.

The merger valued Credit Suisse at around SFr3bn, a 60% discount on its stockmarket valuation and a fraction of its SFr42bn tangible book value. Shareholders fared better than owners of the bank's Additional-Tier 1 (AT1) bonds—a type of debt designed to absorb losses when a bank fails—who were wiped out in the largest-ever loss for holders of such instruments.

CREDIT SUISSE

It had a good run

AT1 holders, who would normally expect to stand behind shareholders in the slaughterhouse queue, are apoplectic. Some are replaying the legal manoeuvres of the past week in an attempt to argue, probably in vain, that losses should not have been triggered. Since Credit Suisse's shareholders will be paid in stock, the bank's AT1 holders will become only more vexed if UBS shares rally. The firm's share price has risen by more than 5% since the deal was announced.

Although the prices of AT1 bonds issued by other banks have dropped in response to the takeover, do not write off the asset class just yet. AT1 terms vary significantly between issuers—and most offer better protection than Credit Suisse's. Jurisdictional differences also matter. The Bank of England and European Central Bank rushed to reassure investors that their nightmare was uniquely Swiss, and that they would be better protected in the event of a British or euro-zone collapse. AT1s are perpetual, meaning banks do not face refinancing risks anytime soon. But UBS, which has a disproportionately large number of AT1 bonds, will probably be penalised by investors demanding higher returns if it does decide to issue more in order to bolster its balance-sheet.

The bank's management faces the more immediate problem of integrating the two residents of Zurich's Paradeplatz. Ralph Hamers, chief executive of UBS, must adjust from running the profitable institution he inherited in 2020 to guiding a chaotic ship through choppy waters. UBS will benefit from SFr100bn of liquidity from the Swiss central bank and SFr9bn of protection from losses it might sustain when disposing of unwanted bits of Credit Suisse. Mr Hamers plans to make billions of dollars of cuts, hoping that the transaction will have made money by 2027. Executing such plans will be difficult with Swiss regulators keeping close tabs.

The combination of the banks' wealth-management and Swiss banking operations could prove potent, even if there are potential snags. Previous wealth-management mega-deals have seen clients flee. Some prefer to park their money with more than one institution—an approach which seems all the more sensible after the past fortnight. Shares in Julius Baer, another of Switzerland's courtiers to the rich, jumped this week in expectation of new clients.

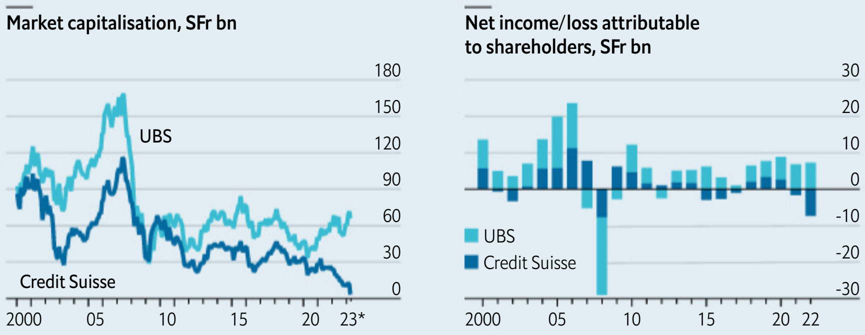
Fruit of the union

But after the merger, both divisions will be powerhouses. UBS will probably hold nearly a third of the Swiss market. The jewel will remain its wealth-management business, which has posted an impressive average return on equity of 24% in the past five years. UBS will become the second-largest wealth manager globally, with $3.4trn of assets under management and a strong claim on the wallets of the world's billionaires. Iqbal Khan, head of wealth management, joined UBS from Credit Suisse in the midst of a spying scandal in 2019.

The path to profitability will involve brutal cost-cutting, not least in the merged firm's investment bank, which UBS plans to keep firmly subordinate to its wealth-management outfit. Both UBS and Credit Suisse have found it hard to strike this balance in recent years. Today there are many more superstar bankers who used to work at Swiss banks than work at Swiss banks.

Although Credit Suisse had already begun swinging the axe, having announced the sale of its securitised-products business last year, the operational changes will ▸▸

A big plus



Market capitalisation, SFr bn

Net income/loss attributable to shareholders, SFr bn

Sources: Refinitiv Datastream; Bloomberg

*To March 22nd

now be much more bloody. The offending risky businesses will be moved to a "non-core" unit, and quickly wound down. UBS is likely to cherry-pick Credit Suisse's strongest dealmaking groups, which include those advising on corporate buyouts, and get rid of the rest. Only bankers with the most polished Rolodexes have any chance of surviving the cull.

Credit Suisse's plan to spin out its investment-banking operations under Michael Klein, a dealmaking supremo who sat on the firm's board until October, will probably be shelved. But a similar plan for a stand-alone Swiss investment bank could eventually prove attractive if UBS is able to combine its strongest bankers with those from Credit Suisse. Slow dealmaking markets should help them to hold on to top performers, who may be unable to secure gigs elsewhere, at least for now.

In the future UBS will no doubt look at other ways to make its business less unwieldy and more focused on profitmaking. Outside the beloved wealth-management division, pretty much everything will be fair game. Deutsche Bank's spin-off of DWS, its asset-management business, could serve as a precedent for a similar move. Long before the merger, Credit Suisse had considered shedding part of its Swiss business to raise capital.

Financial policymakers around the world will be hoping the merged institution succeeds. Turmoil in America and Europe has already given them cause for concern. But Swiss officials will no doubt be keenest of all for a healthy union. The prospect of further trouble is now chilling. After all, this week's solution—a merger—would be off the table. The new megabank would simply be too big for such a deal. ■

Buttonwood Collateral damage

Why markets can never be made truly safe

COLLATERAL IS USUALLY a boring affair. Valuing assets and extending credit against them is the preoccupation of the mortgage banker and the repo trader, who arranges trillions of dollars a day in repurchase agreements for very short-term government bonds. This activity is called financial plumbing for a reason: it is crucial but unsexy. And like ordinary plumbing, you hear about it only when something has gone wrong.

Now is one of those times. On March 16th the Swiss National Bank extended $54bn to Credit Suisse, backed by the bank's collateral, in a move that turned out to be insufficient to save the 167-year-old institution. On March 19th America's Federal Reserve announced it would reactivate daily dollar swap lines with Britain, Canada, the euro area, Japan and Switzerland. The central banks of these economies can now borrow dollars from the Fed at a fixed exchange rate for short periods, backed by their own currencies, and lend them on to local financial firms.

In normal times assets that are exposed to little risk, and thought unlikely to swing much in value, underpin lots of market activity. Government bonds and property are typical examples of collateral. Commodities, corporate credit and stocks are riskier but also sometimes employed. Both sorts of collateral are at the root of many financial crises.

The perception of safety is the reason why risks eventually emerge. The safer assets are thought to be, the more comfortable a lender is extending credit against them. Sometimes the assets are themselves safe, but the lending they enable (and the use of the money) is not.

This tension between safety and risk can prompt financial panics. At other times, the problem is simple misjudgment. The activities of Silicon Valley Bank (SVB) were in essence a leveraged bet on assets its bankers believed to be solid: long-dated mortgage and Treasury bonds. The firm's management believed it could safely borrow money—namely, that owed to depositors in the bank—against these reliable assets. The subsequent rapid drop in price of the assets was ultimately the cause of the bank's downfall.

During the global financial crisis of 2007-09, the belief in the unimpeachable safety of the American mortgage market led to an explosion in collateralised lending. The blow-up did not even require actual defaults in mortgage-backed securities. The mere shift in the probability of default raised the value of credit-default swaps, and the liabilities of firms that sold the products, which was sufficient to sink institutions that had sold enormous volumes of the swaps. In Japan in the early 1990s a collapse in land prices, the preferred collateral of domestic banks, led to a slow-burning series of financial crises that lasted for longer than a decade.

Crises do not only reveal where collateral has been wrongly judged to be safe. They are also the source of innovations that upend how collateral works. In response to the panic of 1866, caused by the collapse of Overend, Gurney & Company, a wholesale bank in London, Walter Bagehot, a former editor of this newspaper, popularised the idea of central banks operating as lenders of last resort to private financial institutions, against sound collateral. The daily swap lines recently reactivated by the Fed were introduced in the financial crisis and reopened in the early period of covid-19.

The Fed's "Bank Term Funding Programme", introduced after the collapse of SVB, is the first innovation in collateral policy during the present financial wobble. The programme's generosity is both new and shocking. A 30-year Treasury bond issued in 2016 is worth around a quarter less than its face value in the market today, but is valued at face value by the Fed if an institution pledges it as collateral. In the programme's first week, banks borrowed nearly $12bn, as well as a record $153bn from the central bank's ordinary discount window, at which banks can now borrow without the usual haircut on their collateral.

The programme could change the understanding of collateral that has built up over the past 150 years. If investors expect the facility to become part of the regular panic-fighting toolkit, as swap lines have, then long-maturity bonds would enjoy a new and very valuable backstop. This would mean that financial institutions benefit when interest rates fall and their bonds rise in value; and when rates rise and the bonds slump in value, the Fed comes to the rescue. In an attempt to remove the risk of sudden collapses, and make the financial system safer, policymakers may in the long run have done just the opposite.

Industrial policy

The battle for Europe's soul

The EU readies its response to America's protectionism

Over the past two weeks, a flurry of proposals to reshape Europe's economic model has emerged from the Berlaymont, a cruciform building in Brussels, which is home to the European Commission. The commission usually fiercely guards the EU's rules. But things are now in flux. The proposals contain ideas for how governments can help companies invest in green technology, cut reliance on dominant suppliers (read: China) and boost industry. On March 23rd, after we went to press, leaders from the EU's 27 member states were due to come together to discuss the changes and set plans in motion.

The discussions may reshape the bloc's very core. The EU is in essence the deepest and most comprehensive free-trade agreement in the world. Restrictions on subsidies, along with common rules and regulations, some extremely stringent, ensure a level playing-field. This market-mindedness is reflected in the fact that the EU has long had a carbon-trading scheme for industry and electricity generation, which will in time be extended to heating and transport. The EU is relatively open to trade and investment from the outside world, too. Only agriculture remains subsidised and protected from competition.

Yet the bloc's leaders worry this openness has left Europe exposed. America's protectionism and China's rising assertiveness are seen as evidence that old certainties must now be reconsidered. In the eyes of many, the urgency of climate change, disruptions during the covid-19 pandemic and Russia's invasion of Ukraine only underline the need for the EU to take a more interventionist role.

The next generation of European subsidies will not be combined with the sort of protectionist "buy local" clauses favoured in America. These would violate WTO rules which the EU, at least, still thinks are important. But the commission is determined to bolster the continent's manufacturers and reduce dependence on China as it spends on the green transition. This will require big changes to the internal market, trade policy and state-aid rules.

Dirigiste directions

The most straightforward reforms relate to domestic policies. Countries in Europe are trying to shorten permitting times for green projects, lighten administrative burdens and train the workforce in the skills it needs to make heat pumps and install solar panels. The commission also wants them to introduce "regulatory sandboxes", to allow for deviation from ordinary rules so that innovative firms can experiment. New EU rules would provide extra incentive to get going on this.

The commission also wants to sign long-term agreements with countries that supply crucial raw materials, such as lithium and rare-earth metals. This could prove trickier, as Europe is not the only place in need of these minerals. If European politicians demand lots of green standards are met when sourcing the materials, countries might simply strike deals with other buyers. As painful as it will be for Europe, the continent's leaders may have to make peace with dodgy practices. Forthcoming negotiations with America—about access to its markets for Europe's raw materials—might help familiarise the continent's leaders with uncomfortable trade-offs.

The most significant rule changes involve experiments with protectionism. The commission wants national leaders to agree to domestic-production targets, something at odds with the bloc's usual market-minded approach. At the moment these are mere ambitions. They state that, among things deemed "strategic technologies", including heat pumps and solar panels, the EU should produce 40% of what it uses. They also state that the EU should mine 10% and refine 40% of the resources needed for the green transition. If formally adopted, the targets could end up shaping policy on state aid, subsidies and trade.

The commission also plans to allow governments to subsidise green investment more freely. In early March, under pressure from national governments led by France, it relaxed strict state-aid rules, which had prevented governments from tilting the playing-field in favour of domestic firms. Now countries can more generously support companies that want to make factories greener or expand renewable-energy production. The new approach looks beyond Europe's shores. It would allow governments to pay firms to invest in the bloc by matching subsidies they are offered by other countries, a move designed to counter America's new regime.

Plans to get governments to diversify when handing out subsidies and buying stuff are more nuanced. The commission wants governments to take the way a supplier might contribute to the bloc's "resilience" into account when making decisions—code for moving away from China. If a supplier dominates the EU market, selling more than 65% of a particular good, it is considered a problem. Yet there is a carve-out. If the price difference between options is more than 10% firms would be allowed to plump for the cheaper (Chinese) one.

Imagine the red tape. In the fight for Europe's economic soul, Britain's absence as a supporter of markets will be keenly felt by former allies. Germany will need to take a stand against intervention (and thus France). But its politicians are wavering. The country's coalition government does not agree on many of the issues, and as the EU's biggest industrial economy, with deep pockets to boot, Germany stands to benefit from inward-looking policy. Thus the continent's rule-book is about to undergo sweeping changes. ■

Following the herd

Free exchange | The missing half-trillion

How the Federal Reserve drained America's banks of deposits

It is easy to understand how money gets destroyed in a traditional bank run. Picture the men in top hats yelling at clerks in "Mary Poppins". The crowds want their cash and bank tellers are trying to provide it. But when customers flee, staff cannot satisfy all comers before the institution topples. The remaining debts (which, for banks, include deposits) are wiped out.

This is not what happens in the digital age. The depositors fleeing Silicon Valley Bank (SVB) did not ask for notes and coins. They wanted their balances wired elsewhere. Nor were deposits written off when the bank went under. Instead, regulators promised to make SVB's clients whole. Although the failure of the institution was bad news for shareholders, it should not have reduced the aggregate amount of deposits in the banking system.

The odd thing is that deposits in American banks are nevertheless falling. Over the past year those in commercial banks have sunk by half a trillion dollars, a drop of nearly 3%. This makes the financial system more fragile, since banks must shrink to repay their deposits. Where is the money going?

The answer starts with money-market funds, low-risk investment vehicles that buy short-term government and corporate debt. These saw inflows of $121bn last week as SVB failed. However money does not actually enter such vehicles, for they are unable to take deposits. Instead, cash that leaves a bank for a money-market fund is credited to the fund's bank account, from which it is used to purchase the commercial paper or short-term debt in which the fund invests. When the fund uses money in this way, it flows to the bank account of whichever institution sells the asset. Inflows to money-market funds should thus shuffle deposits around the banking system, rather than force them out of it.

And that is what used to happen. Yet there is one obscure way in which money-market funds may suck deposits from the banking system: the Federal Reserve's reverse-repo facility, which was introduced in 2013. The scheme was a seemingly innocuous change to the financial system's plumbing that may, a decade later, be having a profoundly destabilising impact on banks.

In a usual repo transaction a bank borrows from competitors or the central bank and deposits collateral in exchange. A reverse repo does the opposite. A shadow bank, such as a money-market fund, instructs its custodian bank to deposit reserves at the Fed in return for securities. The scheme was meant to aid the Fed's exit from ultra-low rates by putting a floor on the cost of borrowing in the interbank market. After all, why would a bank or shadow bank ever lend to its peers at a lower rate than is available from the Fed?

But use of the facility has jumped in recent years, owing to vast quantitative easing (QE) during covid-19 and regulatory tweaks which left banks laden with cash. QE creates deposits: when the Fed buys a bond from an investment fund, a bank must intermediate the transaction. The fund's bank account swells; so does the bank's reserve account at the Fed. From the start of QE in 2020 to its end two years later, deposits in commercial banks rose by $4.5trn, roughly equal to the growth in the Fed's own balance-sheet.

For a while banks could cope with the inflows because the Fed decided at the start of covid to ease a regulation known as the "supplementary leverage ratio" (SLR). This stopped the growth in commercial banks' balance-sheets from forcing them to raise more capital, allowing them to safely use the inflow of deposits to increase holdings of Treasury bonds and cash. Banks duly took the opportunity, buying $1.5trn of Treasury and agency bonds. Then in March 2021 the Fed let the exemption from the SLR lapse. As a result, banks found themselves swimming in unwanted cash. They shrank by cutting their borrowing from money-market funds, which instead chose to park their cash at the Fed. By 2022 the funds had $1.7trn deposited overnight in the Fed's reverse-repo facility, compared with a few billion a year earlier.

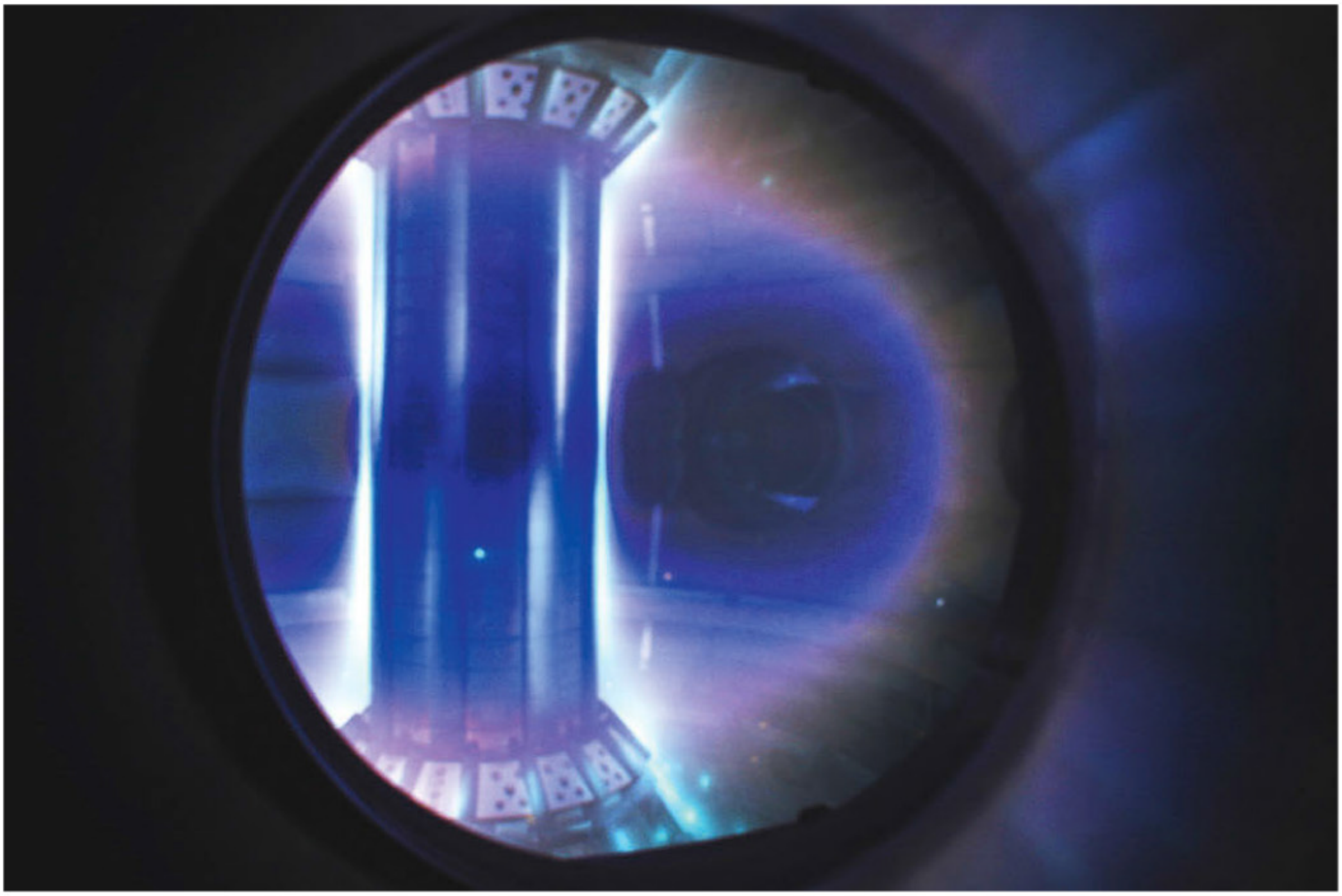
After the fall of SVB, America's small and midsized banks fear deposit outflows. The problem is that monetary tightening has made them still more likely. Gara Afonso and colleagues at the Federal Reserve Bank of New York find that use of money-market funds rises along with rates, since returns adjust faster than those from bank deposits. Indeed, the Fed has raised the rate on overnight-reverse-repo transactions from 0.05% in February 2022 to 4.8%, making it much more alluring than the going bank-deposit rate of 0.4%. The amount money-market funds parked at the Fed through the reverse-repo facility—and thus outside the banking system—jumped by half a trillion dollars in the same period.

A licence to print money

For those lacking a banking licence, leaving money in the repo facility is a better bet than leaving it in a bank. Not only is the yield considerably higher, but there is simply no reason to worry about the Fed going bust. Money-market funds could in effect become "narrow banks": institutions that back consumer deposits with central-bank reserves, rather than higher-return but riskier assets. A narrow bank cannot make loans to firms or write mortgages. Nor can it go bust.

The Fed has long been sceptical of such institutions, fretting that they would undermine banks. In 2019 officials denied TNB USA, a startup aiming to create a narrow bank, a licence. A similar concern has been raised about opening the Fed's balance-sheet to money-market funds. When the reverse-repo facility was set up, Bill Dudley, then the president of the New York Fed, worried it could lead to the "disintermediation of the financial system". During a financial crisis it could exacerbate instability with funds running out of riskier assets and onto the Fed's balance-sheet.

There is no sign yet of a dramatic rush. For now, the banking system is dealing with a slow bleed. But deposits are growing scarcer as the system is squeezed—and America's small and midsized banks could pay the price. ■



Fusion power

The other nuclear energy

CULHAM

Fusion power is coming back into fashion. This time it might even work

On January 12th Oxfordshire County Council, in England, gave the go-ahead for a new building near the village of Culham. The applicant, General Fusion, is a Canadian firm, and the edifice will house its Fusion Demonstration Program, a seven-tenths-scale prototype of a commercial nuclear-fusion reactor. The firm picked Culham because it is the site of JET, the Joint European Torus, an experimental fusion reactor opened in 1983 by a consortium of governments. That means there is plenty of local talent to be recruited.

General Fusion is not alone. On February 10th Tokamak Energy, a British firm, announced plans for a quarter-scale prototype, the ST80, also at Culham. And in 2024 they will be joined there by Machine 4, a pre-commercial demonstrator from another British outfit, First Light Fusion.

Meanwhile, across the ocean in Massachusetts, Commonwealth Fusion Systems is already building, in Devens, a town west of Boston, a half-scale prototype called SPARC. On the other side of America, in Everett, Washington, Helion Energy is likewise constructing a prototype called Polaris. And in Foothill Ranch, a suburb of Los Angeles, TAE Technologies is similarly working on a machine it calls Copernicus.

These six firms, and 36 others identified by the Fusion Industries Association (FIA), a trade body for this incipient sector, are hoping to ride the green-energy wave to a carbon-free future. They think they can succeed, where others failed, in taking fusion from the lab to the grid—and do so with machines far smaller and cheaper than the latest intergovernmental behemoth, ITER, now being built in the south of France at a cost estimated by America's energy department to be $65bn. In some cases that optimism is based on the use of technologies and materials not available in the past; in others, on simpler designs.

Many of those on the FIA's rapidly growing list are tiddlers. But General Fusion, Tokamak, Commonwealth, Helion and TAE have all had investments in excess of $250m. TAE, indeed, has received $1.2bn and Commonwealth $2bn. First Light is getting by on about $100m. But it uses a simpler approach than the others ("fewer screws", as Bart Markus, its chairman, puts it), so has less immediate need for cash.

All these firms have similar timetables. They are, or shortly will be, building what they hope are penultimate prototypes. Using these they plan, during the mid-to-late 2020s, to iron out remaining kinks in their processes. The machines after that, all agree, will be proper, if experimental, power stations—mostly rated between 200MW and 400MW—able to supply electricity to the grid. For most firms the aspiration is to have these ready in the early 2030s.

Un peu d'histoire

The idea of harnessing the process that powers the sun goes back almost as far as the discovery, in the 1920s and 1930s, of what that process is—namely the fusion of protons, the nuclei of hydrogen atoms, to form helium nuclei (^{4}He), also known as alpha particles. This reaction yields something less than the sum of its parts, for an alpha particle is lighter than four free protons. But the missing mass has not disappeared; it has merely been transformed. As per Einstein's equation, $E=mc^2$, it has been converted into energy, in the form of heat.

This sounded technologically promising. But it was soon apparent that doing it the way the sun does is a non-starter.

Persuading nuclei to fuse requires heat, pressure or both. The pressure reduces the space between the nuclei, encouraging them to meet. The heat keeps them travelling fast enough that when they do meet, they can overcome their mutual electrostatic repulsion, known as the Coulomb barrier, and thus allow a phenomenon called the strong nuclear force, which works only at short range, to take over. The strong force holds protons and neutrons together to form nuclei, so once the Coulomb barrier is breached, a new and larger nucleus quickly forms.

The temperature at which solar fusion occurs, though high (15.5m°C), is well within engineers' reach. Experimental reactors can manage 100m°C and there are hopes to go higher still. But the pressure (250bn atmospheres) eludes them. Moreover, solar fusion's raw material is recalcitrant. The first step on the journey to helium—fusing two individual protons together to form a heavy isotope of hydrogen called deuterium (a proton and a neutron)—is reckoned to take, on average, 9bn years.

What engineers propose is thus a simulacrum of the solar reaction. The usual approach—that taken by General Fusion, Tokamak Energy, Commonwealth Fusion and First Light, as well as government projects like JET and ITER—is to start with deuterium and fuse it with a yet-heavier (and radioactive) form of hydrogen called tritium (a proton and two neutrons) to form ^{4}He and a neutron. (Fusing deuterium nuclei directly, though sometimes done on test runs, is only a thousandth as efficient.)

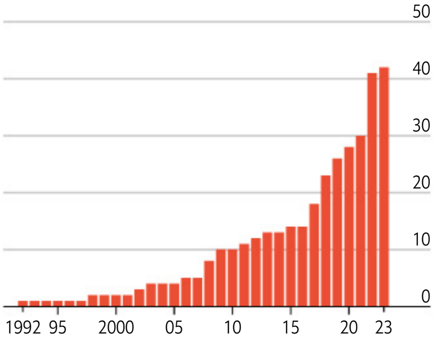
Ignition sequence start

The power released emerges as kinetic energy of the reaction products, with 80% ending up in the neutron. The proposal is to capture this as heat by intercepting the neutrons in an absorptive blanket and then use it to raise steam to generate electricity. Reactors will also, the idea goes, be able to make the tritium they need (for tritium does not occur naturally) by including in the blanket some ^{6}Li, an isotope of lithium which reacts with neutrons to generate tritium and an alpha particle. Deuterium is not a problem. One in every 3,200 water molecules contains it.

Not everyone, though, is taking the deuterium-tritium route. Helion and TAE are instead proposing versions of what is known as aneutronic fusion.

Coming together

World, total number of private fusion companies



Source: Fusion Industry Association

Helion's suggestion is to start with ^{3}He (two protons and a neutron), a light isotope of helium which is an intermediate stage in the solar reaction. But instead of fusing two of these, as happens in the sun (yielding ^{4}He and two protons), it fuses them one at a time with deuterium nuclei, to produce ^{4}He and a proton. The ^{3}He would be replenished by tweaking conditions to promote a side reaction that makes it from two deuteriums.

TAE proposes something yet more intriguing. Its fuels are boron (five protons and six neutrons) and ordinary hydrogen, both plentiful. When these fuse, the result breaks into three alpha particles. Indeed, TAE originally stood for Tri-Alpha Energy. The problem is that to work satisfactorily a boron-proton fusion reactor will have to generate not a mere 100m°C but 1bn°C.

Even with deuterium-tritium fusion there are many ways to encourage nuclear get-togethers. The aim is to create conditions that match what is known as the Lawson criterion, after John Lawson, who promulgated it in the 1950s. He realised that achieving power generation means juggling temperature, density and the time for which the reaction can be prolonged. This trinity gives rise to a value called the triple product which, if high enough, results in "ignition", in which the reaction generates enough energy to sustain itself.

The most common reactor design, a tokamak, majors on temperature. It was invented in Russia in 1958, and pushed aside two previous approaches, z-pinching and stellarators, because it appeared to offer better control over the deuterium-tritium plasma used as fuel. (A plasma is a gas-like fluid in which atomic nuclei and electrons are separated.) Its reaction chamber is a hollow torus which contains the plasma. This torus has a set of toroidal electromagnetic coils wrapped around it, paired poloidal coils above and below it, and a solenoid running through the middle (see panel 1 on next page).

A plasma's particles being electrically charged, a tokamak's magnets can, in combination, control their behaviour—containing and heating them to the point at which the nuclei will fuse. The plasma must, though, be kept away from the reaction vessel's wall. If it makes contact it will cool instantly and fusion will cease. Stellarators, though also toroidal, required a more complex (and hard to control) arrangement of magnets. z-pinching used an electric current through the plasma to generate a self-constraining magnetic field.

A conventional tokamak's torus resembles a doughnut, but Tokamak Energy's design (the interior of the current version is pictured, plasma-filled, on the previous page) looks like a cored apple. This was calculated, in the 1980s, to be more efficient than a doughnut. The calculation was done by Alan Sykes, who then worked on JET and who is one of the company's founders.

The efficiency and compactness of Dr Sykes's spherical layout have been greatly enhanced by using high-temperature superconductor tapes for the coils' windings. ("High temperature" means they operate below the boiling point of nitrogen, -196°C, rather than that of liquid helium, -269°C). These offer no resistance to the passage of electricity, and thus consume little power. Such tapes are now available commercially from several suppliers.

Commonwealth Fusion also uses high-temperature superconductors in its magnets. And, though its tokamak will be a conventional doughnut rather than a cored apple, it, too, will be compact.

At least as important as the magnets is the other improvement both firms have brought to tokamaks: plasma control. Tokamak Energy's system, for example, is run from a control room that would not disgrace the set of a James Bond film. The software involved is able to track the plasma's behaviour so rapidly that it can tweak conditions every 100 microseconds, keeping it away from the reactor walls. Come the day a commercial version is built, it will thus be able to operate continuously.

The pressure's on

General Fusion, by contrast, plans to match the Lawson criteria using pressure, as well as temperature, in an approach it calls magnetised target fusion. As Michel Laberge, its boss, explains, the fuel is still a plasma, but the reaction vessel's lining is a rotating cylinder of liquid metal—lithium in the prototype, and a mix of lithium and lead in the putative commercial model.

Once the fuel has been injected into the cavity inside this cylinder, pneumatic pistons will push the metal inward (see panel 2), collapsing the cavity into a small sphere. That compresses and heats the plasma to the point where it starts to fuse. If this system can achieve ignition, the heat generated will be absorbed by the liquid lithium—whence it can be extracted to raise steam. Also, some of the neutrons will convert ^{6}Li in the lining into tritium.

General Fusion, too, relies on sophisticated software to control the pistons and so shape the plasma appropriately. But Dr Laberge believes that doing without electromagnets has simplified the design and removed potential points of failure.

TAE and Helion, meanwhile, both use so-called field-reversed configurations (see panel 3) to confine their plasma. Their reaction chambers resemble hollow barbells, but with a third "weight" in the middle. The ends generate spinning plasma toroids that are then fired at each other by magnetic fields. Their collision triggers fusion. Again, this would not be possible without sophisticated control systems.

Both Helion and TAE plan to generate electricity directly, rather than raising steam to run a generator. Helion will pluck it from the interaction between the magnetic field of the merged plasma toroids and the external field. How TAE intends to do it is undisclosed, though it says several approaches are being considered.

Several members of the FIA list's "tail" of 36 are pushing the edges of the technological envelope in other ways. Some are exploring yet further fuel cycles—reacting deuterium nuclei to generate power, rather than just to test apparatus, for instance, or fusing lithium with protons. Others are sticking to the deuterium-tritium route, but examining different types of reactor.

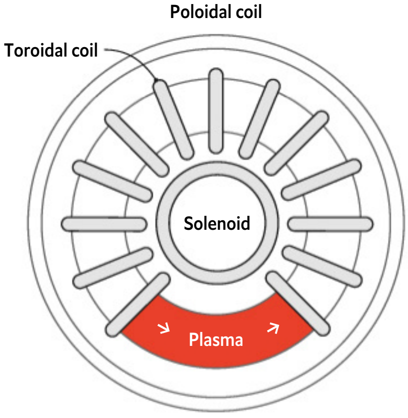
Zap Energy, in Seattle, for example, is using enhanced plasma control to revive z-pinching. And several firms, including Princeton Stellarators and Type One Energy Group, both in America, and Renaissance Fusion, in France, are dusting off stellarators—again in the belief that modern computing can deal with their quirks.

But the most immediate competition for tokamaks, field-reversed configurations and General Fusion's hydraulic design is an approach called inertial fusion. In this the fuel starts off in a small capsule and the Coulomb barrier is overcome by applying an external shock.

At the moment, the leader of the inertial-fusion pack is First Light. Its engineers apply the shock in the form of a projectile fired by electromagnetic acceleration (see panel 4). The target is a fuel capsule inside a cube-shaped amplifier. The amplifier boosts the impact's shock wave (to 80km per second, it is hoped, in the case of Machine 4) and refracts it so that it converges on the capsule simultaneously from all directions. This will implode the fuel, achieving an ignition-level triple-product.

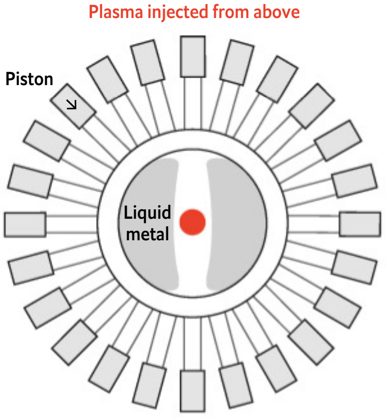
→ A beginner's guide to fusing nuclei

1 Tokamak



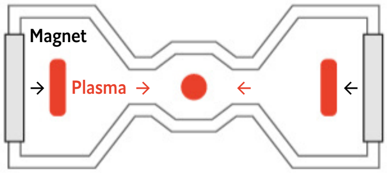
Plasma fuel is confined and heated by electromagnets arranged around a toroidal reaction chamber

2 Magnetised target fusion



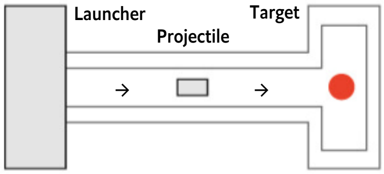
Plasma is compressed by the liquid-metal lining of the reaction chamber, itself pushed inward by pistons

3 Field-reversed configuration



Plasma toroids at each end of the reaction chamber are propelled to the centre, where they collide

4 Projectile-based inertial fusion



A projectile is accelerated down a tube. Hitting the target compresses a fuel capsule, triggering fusion

Sources: Tokamak Energy; General Fusion; Helion Energy; First Light Fusion; *The Economist*

First Light's approach is, however, unusual. Most other proponents of inertial fusion plan to deliver the shock with lasers. These include Focused Energy, of Austin, Texas; Marvel Fusion, of Munich; and Xcimer Energy, of Redwood City, California. They are all following a path pioneered by the National Ignition Facility (NIF), an American government project to study the physics of atomic weapons.

Green grow my dollars-o

In December 2022 the NIF caused a flutter by announcing it had reached ignition. But the energy released was less than 1% of that expended, meaning it was nowhere near another *sine qua non* of commercial fusion, Q>1. Q is the ratio of the energy coming out of a machine to that going in. Different versions of Q have different definitions of "out" and "in". But the one most pertinent to commerce is "plug to plug"—the electricity drawn grid to run the whole caboodle versus the energy delivered to back the grid. Focused, Marvel and Xcimer hope to match that definition of Q>1.

It all, then, sounds very bubbly and exciting. But bubbly—or, rather, a bubble—is precisely what some critics worry it is.

First, many technological challenges remain. Dr Markus's observation about the number of screws is shrewd. In particular, his firm (and also General Fusion) have dealt with the need for complex magnetic plasma-control systems by avoiding them.

Finance is also a consideration. Fusion, like other areas of technology, has benefited from the recent period of cheap money. The end of that may garrotte much of the tail. But the pack leaders have stocked up with cash while the going was good. This should help them to hang on until the moneymen and women can judge them on results, rather than aspirations.

Nor should the arrival date of the early 2030s be seen as set in stone. This is an industry with a record of moving deadlines, and a British government project to build a spherical tokamak called STEP has a more cautious target to be ready in 2040.

Moreover, even if a practical machine does emerge, it will have to find its niche. The story told by the companies is of supplying "baseline" power in support of intermittent sources such as solar and wind—and doing so in a way that avoids the widespread public fear of an otherwise-obvious alternative, nuclear fission. That might work, but it will also have to be cheaper than other alternatives, such as grid-scale energy-storage systems.

For fusion's boosters, though, there is at least one good reason for hope. This is the sheer variety of approaches. It would take only one of these to come good for the field to be transformed from chimera to reality. And if that happened it could itself end up transforming the energy landscape. ■

Culture

History in Africa

The coast is cleared

LAMU

How history is told can depend on who is paying, as a restored museum on a Kenyan island shows

BACK IN THE 1950s, a young British officer known as the district commissioner was ensconced in a charming seafront mansion from which he lorded it over the locals of Lamu, an island off the north-eastern coast of what was then the colony of Kenya. "The place was magical," he wrote in an essay published half a century later. "Enchanted, I fell under its spell."

The locals were Muslims, proud of a heritage known as Swahili that is a hybrid of Arab and mainland African culture from inland, lending its name to the local language and people. The pace of life was steady, to put it mildly. "Most of them regarded all forms of change with the gravest suspicion," wrote that former administrator, Peter Lloyd. "The town itself reflected their attitude, being the epitome of changelessness. As just one example, my palatial residence had been completed in 1892, yet everybody still called it 'the new house'."

> And what a house! Despite the absence of both electricity and piped water and the presence of a multitude of bats, it was a place of delights. So vast that I occupied only a small part of the building...Whole families were established elsewhere in it, claiming to be descendants of slaves of its original owner, with squatters' rights. In return they performed odd jobs, like bringing up water from the cistern. I even discovered, after living there for several months, that someone had started a shop in the back premises.

After Kenya won its independence in 1963, the house fell into disrepair. But in 1970 Jim Allen, an Anglo-Kenyan scholar with an engagingly grumpy air and an almost obsessive love of Lamu, persuaded the government to convert it into the Lamu Museum. Allen became the founding director, filling the dusty and dilapidated rooms with an array of paraphernalia from up and down the coast.

Following Allen's departure in 1974 and death 16 years later, the museum's fortunes ebbed and flowed, lacking funds and dynamic leadership. The building at last looked truly old. The antique cannon by the front door still pointed out across the channel, where dhows with traditional triangular sails go gently by. But few people, locals or tourists, bothered to pass through the handsomely carved wooden portal.

In the past few years, however, it has undergone a revival, thanks to funds from the sultanate of Oman, whose still-reigning al-Busaidi dynasty once ruled much of the east African coast. Last month the museum was reopened with much fanfare by Kenya's minister of tourism, wildlife, culture and heritage. The renovation shows how, nowadays, history is sometimes told not by the winners, but by the funders.

The museum is now spick and span. There is no sign of bats or any other random detritus from the days of Lloyd or even those of Allen, though heavily laden donkeys still trot past (cars remain banned on the island). But the locals are taken aback. For the emphasis of the heritage narrated inside, captioned in Swahili, English and Arabic, is almost entirely Omani. There are models of a newly constructed town and recently restored buildings—all of them in Oman. Whole rooms and galleries, replete with videos, are dedicated not to Lamu but to Oman.

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The old museum's fanciest and most valuable artefact, a side-blown horn known as a *siwa*—carved with intricate beauty out of an immense elephant tusk—has been dispatched to Nairobi, Kenya's distant capital, reportedly for security reasons. An elderly museum guide, disconsolately showing your correspondent around, muttered, "Oman! Oman! Oman! Why no Lamu?" Mohammed Mwenje, the museum's director, says his team are still working on the part of the exhibition that will be devoted to the island. Most of the relevant items, he maintains, "have not yet returned from storage".

The entrance hall, meanwhile, is graced with two grand portraits, side by side, of the recently elected president of Kenya, who hails from 700km (435 miles) away, and the sultan of Oman. Allen, the museum's founder, widely credited with putting Lamu on the cultural map when it was a hidden backwater, is unmentioned.

More controversially, so is the topic of slavery, which the Omani elite practised well into the 20th century. From around 1700 until the British arrived in the late 19th century, the sultanate of Oman ruled a coastal strip that stretched down to include Zanzibar (which is now part of Tanzania). Zanzibar became an entrepot for dates, cloves, carpets, mangrove poles and—not least—slaves. At one time slaves were reckoned to make up at least half of its population.

In 1907 Zanzibar's sultan, a scion of the Omani al-Busaidi dynasty, was forced by his British overlords to outlaw the practice up and down the coast. Nevertheless, "perhaps half of [Lamu's] slave population, including whole families, remained under a system of de facto, if not de jure, slavery," according to the *American Historical Review* (*AHR*) in 1983. In his nostalgic essay, Lloyd relates how in the 1950s some visiting Omani luminaries made a suggestion. The British were then detaining many hundreds of rebellious Mau Mau fighters, mostly ethnic Kikuyus from far inland, in prison camps along the coast. Why not, said those bigwigs, send them off to Oman—as slaves?

"In form and under Islamic law," recounts the *AHR*, "the institution of slavery continued in some measure, and among some families, until Kenya achieved independence." The result was one of Africa's bloodiest revolutions, when the Omani family's Zanzibari branch—which still reigns in Oman today—was finally overthrown in 1964. Even after that, says the *AHR*, de facto slavery endured on Lamu into the 1980s, "by collusion among the old Afro-Arab families (including relatives of the sultan)". It may have lasted even longer.

KENYA
SOMALIA
Nairobi
INDIAN OCEAN
Lamu
250 km
Mombasa
TANZANIA
Zanzibar
OMAN

The old house has been beautifully restored, yet its antiseptic makeover has scraped away some of its mystery and romance. The sanitisation of the past has dulled its impact. The underlying lesson is that, if you bankroll a museum and its telling of history, you can stamp your own memory on them. Not all the people of Lamu are pleased. ■

Wrestling in America

Making it by faking it

Ringmaster. By Abraham Riesman. *Atria Books; 464 pages; $29.99*

PART-WAY THROUGH "Hannah and Her Sisters", Woody Allen's film of 1986, a dyspeptic artist played by Max von Sydow has been flicking through the television channels and grumbles: "Can you imagine the level of a mind that watches wrestling?" Apparently the character labours under a common snooty misconception. He seems to grasp that professional wrestling is fake—meaning the outcomes of the matches are predetermined—but assumes its fans do not.

In reality, as Abraham Riesman explains in "Ringmaster", his thorough but overwritten biography of Vince McMahon—the majority owner of World Wrestling Entertainment (WWE) and the man who turned wrestling into an entertainment behemoth—many devoted fans are "smarts" rather than "marks". They know they are watching a scripted event more akin to a soap opera than a traditional sport. But they love it anyway, either despite its phoniness or, more likely, because of it. They are seeing athletic entertainers acting out storylines at once simple, driven by lust or grievance, and tortuous, with as many twists as an endless airplane novel. They maintain "the pose of belief so as not to be rude to their heroes".

Those fans number in the tens of millions and are spread all over the world. Last year WWE, the publicly traded company that Mr McMahon built, had revenues of $1.3bn. Wrestlers of the past, such as Hulk Hogan and Andre the Giant (pictured), sometimes dabbled in acting; more recent ones, such as John Cena and Dwayne "The Rock" Johnson, used their starts in wrestling to become genuine film stars. Donald Trump's career, meanwhile, has been intertwined with professional wrestling for more than three decades—ever since, in the late 1980s, one of his casinos in Atlantic City was billed as the host of WrestleManias 4 and 5, jamborees that were actually held at other local venues.

Mr Trump's spectre haunts this book, which really tells two stories, one more tenuous than the other. The first and better tale is about Mr McMahon himself, and his rise from rural and small-town poverty in North Carolina. Like some other successful businessmen—indeed, like Mr Trump—he passes himself off as self-made. In fact his father and grandfather, respectively Vince McMahon senior and Jess McMahon, were wrestling promoters in the sport's early ramshackle days, when it comprised a set

▸▸

In the land of giants

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of regional fiefdoms that did not compete with each other. But whereas Vince senior was, according to a relative, "the most loving man you'd ever want to know", and held in great esteem and affection by the wrestlers in his stable, his son is said to be cold and ruthless.

He is also shrewd and ambitious, and was able to see that wrestling's fragmented structure was inefficient. An earlier generation of promoters feared television would kill the market for in-person wrestling; Mr McMahon embraced TV and celebrity. WrestleManias—annual pay-per-view events running since 1985—featured not just famous wrestlers such as Hulk Hogan and Mr T, but also appearances by Gloria Steinem, Geraldine Ferraro, Muhammad Ali and Andy Warhol (the first two in recorded clips). Under Mr McMahon, wrestling became, much like American football, better and somehow more authentically experienced on television than live.

"We have lived for a quarter of a century in the world Mr McMahon made," begins the book's final chapter. "Not just wrestling fans—all of us." Those sentences encapsulate its more tenuous story, which is that wrestling's fakery and Mr McMahon's ruthlessness somehow define contemporary America, rather than simply being an aspect of it. Doubtless this thesis will find favour on both America's Trumpian right and the far left, albeit for opposite reasons: the Trumpsters wholeheartedly embracing McMahonism, the left-wingers believing it reveals America's fundamental cynicism and moral bankruptcy.

But readers who do not already agree with the author are unlikely to be persuaded. Cut-throat businessmen and dishonest politicians predate Messrs McMahon and Trump. They do not thrive only in America. Most Americans do not watch wrestling, just as most did not vote for Mr Trump. And if people find either the 45th president or wrestling distasteful, they can vote for someone else—or change the channel. ■

World in a dish

Down the Mexican way

MEXICO CITY

***Pulque* demonstrates the allure of booze made by hand**

IT IS FRIDAY morning, and the Mercado de Xochimilco, in southern Mexico City, is bustling. Over the road is a squat building which, from the outside, looks dead, its shutters drawn and doors closed. Pushing them open reveals a utilitarian space: linoleum floors, formica-topped tables, sturdy wooden chairs. Above a counter are posters on which are handwritten *apio* (celery), *cacahuete* (peanut), *mamey* (a soft orange fruit) and *avena* (oats). These are flavours of *pulque*, a drink made for millennia that offers both an alcoholic kick and an insight into the ancient culture of booze.

Like tequila and mezcal, *pulque* is made from agave sap, but unlike those spirits, it is fermented rather than distilled. *Pulque*-makers carve out the heart of a mature maguey plant (ie, one around 12 years old) and collect the sap, known as *aguamiel*, or "honey water", for its ultra-sweet taste. The heart of a maguey (a kind of agave) will produce as much as six litres per day for up to six months. The fermentation is largely wild or spontaneous, relying on naturally present microbes, though makers will often "backslop"—add some fully fermented *pulque* from a previous batch—to help the process along.

The resulting drink is about as alcoholic as lager, with a viscous texture that may challenge first-timers. The plain version has a pleasant, round, sourish taste reminiscent of a mild kombucha, or the watery yogurt drinks of Iran and Turkey. The flavoured kinds, especially the vibrant, herbal *apio* and the crisp, biscuit-like *avena*, are also well worth trying.

Unlike pasteurised beers, *pulque* is rich in vitamins, minerals and beneficial bacteria. According to local lore it enhances male virility. A *chilango* (Mexico City native) at the *pulquería* that day said his grandfather credited *pulque* with giving him more than a dozen children (the *chilango* himself attributed this fertility to a lack of television). Until quite recently, many *pulquerías* did not admit women, but thankfully that has changed. Because it requires fresh sap, and the maguey's growing range is limited, *pulque* remains a proudly local product, made only in Mexico City and nearby states.

In the early 20th century the city boasted around 1,500 *pulquerías*. That was before big brewers and distillers began a long campaign of demonisation, in which the drink was portrayed as primitive and unhygienic. A false rumour held that excrement aided its fermentation. By the early 21st century, just a dozen or so remained.

It is still much less popular than beer, but food writers and enthusiasts say *pulque* is enjoying a resurgence. It may be that younger Mexicans are taking a renewed interest in their country's rich culinary history. Visitors, too, should seek it out, and not only on the principle that when abroad you should sample what you cannot find at home. *Pulque* connects drinkers to a wilder, more intimate human past, when alcohol—enjoyed the world over for its ability to induce conviviality, relaxation and reflection—came not from a factory or corner shop, but from skilled artisans who fermented local crops into joy. ■

A novel of transformation

The teenager's tail

Chlorine. By Jade Song. *William Morrow; 256 pages; $30*

The mermaids of folklore tend to be tragic figures, pining for legs and the love of human princes. But for Ren Yu, the teenage narrator of "Chlorine", such tales misunderstand the otherworldly powers of these wondrous fish. Ren should know, since she insists she is a mermaid herself.

"Mermaids are not born. We are made," she announces at the start of Jade Song's fresh and propulsive debut. Ren notes that her own metamorphosis, her own "transcendence" of the indignities of her "short and pitiful life as a human girl", took place just before an important swimming competition when she was 17. This novel, Ren explains, is her "tale of becoming".

Reading Ren's account of her life in Pittsburgh, it is easy to understand why she might yearn to splash away from it all. She is a straight-A student, a star swimmer and an immigrant misfit who understands that she must repay her Chinese parents' sacrifices by gaining admission to the Ivy League. Her swimming coach is lecherous, her teachers are condescending and her emotionally aloof mother shows her love through cut-up fruit and high expectations. Her father is back in China, having buckled under the weight of learning English: "What is it called when immigrants reverse, when they wake up from the nightmare masked as a dream?"

Ms Song is good on the growing pains of young adulthood. The "horrors" of female puberty, in all its literal bloodiness, are vivid here. Ren finds that a "so-called period" is actually more of an exclamation mark: "Was womanhood always so violent, raw?" The author conveys the confusion that can attend the dawning of desire, when young women may be more eager to please than to seek pleasure. A moment of sexual possibility turns dark partly because Ren is too cowed to push back: "I never said yes, but I never said no, and the indefinite limbo of maybe is where regret and doubt and confusion reside." Is it any wonder Ren plots an escape from her human body?

The men in this novel can seem so horrible as to be made of straw. But this is a small flaw in a book that enlivens its coming-of-age yarn with a touch of mystery and a twist of myth. "Outwardly, I studied," says Ren. "Inwardly, I sought the weightlessness of water, to be as liberated as the aquatic beings in my imagination." ■

East Germany

The lives of others

Nuance trumps moral clarity in a revisionist history of East Germany

Beyond the Wall. By Katja Hoyer. *Allen Lane; 496 pages; £25. To be published in America by Basic Books in September; $35*

In the eyes of its critics, the communist-run part of Germany was never a proper country. The Kremlin-backed puppet state belied its moniker, being neither German, nor Democratic, nor a Republic. To the day of its incorporation into West Germany in 1990, it was at most the "GDR", written with inverted commas, or more contemptuously, the Zone—recalling its original status as the Soviet-occupied bit of defeated Nazi Germany.

From this dismissive premise, cliché sprouts easily. The "East Germans" were caricatured as clueless and robotic, ill-dressed and housed in dimly lit concrete hutches. They were thought to drive ridiculous little Trabant cars, with plastic bodywork and powered by lawnmower engines. The food was notoriously awful too. The few Westerners who experienced the GDR did so when driving across it to the fleshpots of West Berlin, or when they caught a budget flight to a far-flung destination (Cuba was a favourite) at the dismal Schonefeld airport.

In "Beyond the Wall", Katja Hoyer adds depth, texture and colour to this simplistic picture. Her book's backbone is a vivid political history of the communist German state. The people who founded it were relics, survivors of the Stalinist purges that wiped out three-quarters of the exiled communists who had fled to the Soviet Union in the 1930s. Her sharply drawn pen-portraits bring to life Walter Ulbricht, the ghastly party overlord, and his cronies. Only their "abdication of morality", she writes, enabled them to escape the purges.

This "ideological sediment" of diehard loyalists determinedly recreated the Soviet system they revered. They faced a population traumatised by defeat (and the accompanying mass rapes by Soviet soldiers), along with an economy crippled by their occupiers' relentless demands for reparations. Harsh economic conditions prompted the workers' uprising of 1953. It was bloodily crushed by the Soviets, dispelling any pretence that the place was run on behalf of the toiling masses.

Relations with the Kremlin were perennially mistrustful. The Soviet leadership would have readily sacrificed its comrades in Berlin if that meant securing a neutral, demilitarised Germany. Moscow also disliked warming ties between the two Germanys, though by the end West German bail-outs were keeping the easterners' economy afloat.

Amid the great-power machinations, East Germans were real people, not cartoon characters from a cold-war comic book. They lived as best they could inside a political and economic system that mostly functioned badly and harshly. Their achievements—cultural, sporting and industrial—stoked genuine pride. Previously the author of an acclaimed history of the German empire, Ms Hoyer is now a British academic but was born in the GDR. "There was oppression and brutality," she writes, ▸▸

Back Story Luck be a lady

A triumphant production of "Guys & Dolls" holds lessons for the future of theatre

LIKE SHOOTING craps, theatre is risky business. Actors can miss cues or forget lines, dancers and jokes may fall flat. Punters risk forking out royally for tickets only to hate the play. Producers are subject to the vagaries of the economy and (if they rely on it) statutory funding, not to mention the lightning strike of a pandemic. If the show bombs, they risk losing their shirts.

That fate will not befall the new "Guys & Dolls" at the Bridge Theatre in London. Set in a charmed, harmless New York underworld, Frank Loesser's musical of 1950, adapted from Damon Runyon's stories, features two pairs of wires-crossed lovers. Sky Masterson is a hustler who bets he can take a mission leader, Sarah Brown, on a date to Havana. For 14 years, meanwhile, two-bit craps promoter Nathan Detroit has been engaged to Miss Adelaide, a fixture at the Hot Box—a night spot where, in this version, some of the choreography is downright filthy.

The performances are uniformly strong, especially Marisha Wallace's knockout Adelaide. The salient feature of this revival, however, is its immersive staging. About a third of the audience stands, doubling as bystanders to the high jinks that unfold in their midst (an approach that Nicholas Hytner, the director, used for "A Midsummer Night's Dream" and "Julius Caesar", which enlisted punters as the Roman mob). Stage platforms rise and fall from the floor in assorted configurations, lampposts and manholes artfully indicating new locales. Ushers dressed as cops keep order.

Configuring the theatre this way, says Mr Hytner, means that the people "paying the least are closest to the action". The intimacy and exuberance rub off on the folk in the posh seats, too. "Sheer bliss," cooed the *Times*. "Sure to be a smash hit," said the *New York Times*. If this show were a gate, it'd be swinging.

The same cannot be said for the gates of theatre in general. Audiences in Britain are still down on pre-pandemic levels, as are those on Broadway. Although it spurred innovations in streaming, the coronavirus wrecked productions and careers. In Britain it has been followed by a squeeze on state funding for some high-profile playhouses (but not the Bridge, which doesn't take any).

Beyond the pandemic loom the spectres of Netflix and changing tastes, and a fear that the TikTok generation will be disinclined to sit through "King Lear", or even "Guys & Dolls". Impresarios differ over the right fix: whether to trim costs or invest in razzmatazz, put on cutting-edge work or classics (staples such as "Chicago" and "The Lion King" are doing best on Broadway, says Charlotte St Martin of the Broadway League, a trade association). Star names sell, if you can get them.

In a way, "Guys & Dolls" is a much safer bet than most of Nathan Detroit's. As the musicals of Rodgers and Hammerstein did after the second world war, it supplies neon-lit flamboyance after pinched grey years, and a sequence of earworm songs that you didn't realise you knew. In an artistic sense, though, the moral of this triumphant tale of chancers lies in its boldness and risks.

If theatre is a tightrope walk, Mr Hytner raises the rope, not only because of the pinpoint choreography in cramped spaces. The immersive method adds another risk: that the spectators won't play ball. They are called on to take leaflets from Bible-bashers and share drinks with gamblers. Each night one finds himself at a table in the Hot Box and is clasped to Adelaide's cleavage (ushers forewarn him, Mr Hytner confides).

The real trick, in other words, is not what happens on the shifting stage but in the crowd. "In the theatre", wrote the great director Peter Brook, "the audience completes the steps of creation." This is an age-old insight. It can be traced through Antonin Artaud's interwar "theatre of cruelty"—which aimed to unsettle viewers with sound and light—to Shakespeare's collusive jokes about mad Englishmen, all the way back to the origins of Greek drama in religious rites. The magic happens when a group of strangers, typically sitting in the dark, conspire in turning spectacle into art.

But in a digital age, that principle is more urgent than ever. Just as high-street retailers are surviving by selling what websites cannot, from oven-fresh bread to tattoos, theatre will prosper if it "doubles down on its liveness", as Mr Hytner puts it, offering people "an experience that they can't have looking at a screen". At the end of this "Guys & Dolls", the cast dances with a jubilant audience. As Sky Masterson almost says: it isn't wrong to gamble, only to lose.

▸ but also "opportunity and belonging".

Her book is packed with vignettes and anecdotes that bring this half-forgotten side of German history to life. Your reviewer was a foreign correspondent covering the GDR in the late 1980s and married an East German. These stories ring true.

The book challenges Western smugness. Social mobility was far more common in East Germany than West Germany, Ms Hoyer relates. Working-class people went to university in much greater numbers. Child-care provision was superior. Unlike the situation in West Germany at the time, women could be army officers in the GDR. When their country was abolished, they were promptly sacked.

These are all fair points. West Germany itself was stiflingly conformist. Not only that, it was infested with Nazis in its early decades, plagued by political corruption and subject to hidden American tutelage. It came close to adopting police-state tactics against terrorism in the 1970s.

For all that, West Germany defies comparison to the brutal sham in the east. Cheap Soviet energy mitigated the GDR's economic failures. Snooping and bullying by the secret policemen of the Stasi cowed its people. So did the presence of some 350,000 Soviet troops. For most of its existence it murdered people caught escaping.

These features of life in the GDR were fundamental not incidental, whether in its heyday decade after the mid-1960s or its moribund decay in the 1980s. Ms Hoyer rightly highlights the gaps in modern Germany's understanding of the four decades of oppression in its eastern regions and the resentments that bequeathed. But sentimentality and relativism distort her evaluation of a loathsome dictatorship. ■

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The consultation file is available on PLACE, the French Government procurement platform, under the reference "23-AOO-S005".

*The deadline for applications is **April 25th, 2023**.*

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Economic & financial indicators

Economic data

	Gross domestic product % change on year ago latest		quarter*	2023†	Consumer prices % change on year ago latest		2023†	Unemployment rate %		Current-account balance % of GDP, 2023†	Budget balance % of GDP, 2023†	Interest rates 10-yr gov't bonds latest,%		change on year ago, bp	Currency units per $ Mar 22nd	% change on year ago
United States	0.9	Q4	2.7	0.7	6.0	Feb	4.0	3.6	Feb	-3.0	-5.2	3.5		110	-	
China	2.9	Q4	nil	5.7	1.0	Feb	2.1	5.6	Feb‡§	1.9	-2.7	2.7	§§	9.0	6.89	-7.7
Japan	0.4	Q4	0.1	1.0	4.4	Jan	1.9	2.4	Jan	3.0	-5.9	nil		-8.0	133	-9.1
Britain	0.4	Q4	0.1	-0.3	10.4	Feb	5.9	3.7	Dec††	-3.2	-5.4	3.4		183	0.82	-8.5
Canada	2.1	Q4	nil	0.8	5.2	Feb	3.4	5.0	Feb	-1.2	-1.1	2.7		31.0	1.37	-8.0
Euro area	1.8	Q4	-0.1	0.7	8.5	Feb	5.9	6.6	Jan	1.0	-3.5	2.3		178	0.93	-2.1
Austria	2.6	Q4	-0.1‡	0.8	10.9	Feb	6.6	5.1	Jan	1.1	-3.5	3.0		209	0.93	-2.1
Belgium	1.4	Q4	0.4	0.4	6.6	Feb	6.1	5.8	Jan	-1.9	-5.3	3.1		214	0.93	-2.1
France	0.5	Q4	0.3	0.5	6.3	Feb	5.0	7.1	Jan	-1.9	-5.3	2.7		182	0.93	-2.1
Germany	0.9	Q4	-1.7	-0.1	8.7	Feb	6.2	3.0	Jan	3.5	-2.0	2.3		178	0.93	-2.1
Greece	4.5	Q4	5.6	1.0	6.1	Feb	4.1	10.8	Jan	-7.0	-3.5	4.3		152	0.93	-2.1
Italy	1.4	Q4	-0.5	0.6	9.1	Feb	6.8	7.9	Jan	-0.5	-4.8	4.2		212	0.93	-2.1
Netherlands	3.0	Q4	2.5	0.7	8.0	Feb	6.1	3.5	Feb	6.8	-2.7	2.7		195	0.93	-2.1
Spain	2.7	Q4	0.9	1.4	6.0	Feb	4.3	13.0	Jan	0.3	-4.7	3.2		194	0.93	-2.1
Czech Republic	0.1	Q4	-1.4	-0.2	16.7	Feb	9.9	2.6	Jan‡	-1.0	-4.6	4.6		90.0	22.0	2.0
Denmark	1.7	Q4	3.5	0.8	7.6	Feb	5.0	2.8	Jan	9.0	0.5	2.6		181	6.90	-2.2
Norway	1.3	Q4	0.8	1.4	6.3	Feb	4.6	3.6	Jan‡‡	20.0	11.4	1.4		76.0	10.5	-16.6
Poland	0.6	Q4	-9.3	0.7	18.4	Feb	13.7	5.5	Feb§	-2.3	-2.9	6.0		93.0	4.35	-2.5
Russia	-3.7	Q3	na	-2.4	11.0	Feb	7.3	3.6	Jan§	6.8	-4.6	10.8		-241	77.1	36.6
Sweden	-0.1	Q4	-2.0	-0.6	12.0	Feb	5.6	8.2	Feb§	3.0	-0.3	2.2		129	10.3	-9.0
Switzerland	0.8	Q4	0.1	0.9	3.4	Feb	2.2	1.9	Feb	6.5	-0.7	1.1		59.0	0.92	1.1
Turkey	3.5	Q4	3.8	2.8	55.2	Feb	42.2	10.3	Jan§	-4.4	-3.8	11.9		-1337	19.0	-22.0
Australia	2.7	Q4	1.9	1.6	7.8	Q4	4.2	3.5	Feb	1.1	-2.1	3.4		65.0	1.50	-10.7
Hong Kong	-4.2	Q4	nil	3.4	2.4	Jan	2.4	3.3	Feb‡‡	3.5	-1.4	3.1		99.0	7.85	-0.2
India	4.4	Q4	-3.4	6.0	6.4	Feb	5.8	7.5	Feb	-1.5	-5.9	7.3		57.0	82.7	-7.8
Indonesia	5.0	Q4	na	4.7	5.5	Feb	3.9	5.9	Q3§	0.8	-2.8	6.9		15.0	15,345	-6.4
Malaysia	7.0	Q4	na	3.5	3.7	Jan	2.3	3.6	Jan§	2.9	-5.2	4.0		27.0	4.46	-5.4
Pakistan	6.2	2022**	na	1.9	31.5	Feb	24.0	6.3	2021	-3.2	-5.5	15.3	†††	357	283	-35.9
Philippines	7.2	Q4	10.0	4.8	8.6	Feb	5.7	4.8	Q1§	-3.0	-6.4	6.3		75.0	54.5	-3.8
Singapore	2.1	Q4	0.3	1.7	6.6	Jan	3.3	2.0	Q4	17.2	-0.1	2.9		70.0	1.33	2.3
South Korea	1.3	Q4	-1.6	1.3	4.8	Feb	2.8	3.1	Feb§	2.7	-2.4	3.3		47.0	1,308	-6.8
Taiwan	-0.4	Q4	-1.5	1.9	2.4	Feb	1.6	3.6	Jan	11.8	-2.2	1.2		31.0	30.5	-6.5
Thailand	1.4	Q4	-5.9	3.8	3.8	Feb	2.5	1.0	Dec§	2.1	-2.6	2.4		7.0	34.4	-2.6
Argentina	1.9	Q4	-6.0	-0.2	102	Feb	90.6	6.3	Q4§	-1.0	-3.9	na		na	205	-46.4
Brazil	1.9	Q4	-0.9	1.0	5.6	Feb	5.2	8.4	Jan§‡‡	-2.9	-7.9	12.9		103	5.26	-6.1
Chile	-2.3	Q4	0.2	0.2	11.9	Feb	7.7	8.0	Jan§‡‡	-5.1	-2.5	5.4		-87.0	817	-2.5
Colombia	2.9	Q4	2.7	1.6	13.3	Feb	11.9	13.7	Jan§	-4.7	-4.4	12.1		229	4,778	-21.1
Mexico	3.6	Q4	1.8	1.1	7.6	Feb	5.9	2.9	Jan	-1.1	-3.8	9.2		72.0	18.5	9.4
Peru	1.7	Q4	-6.0	1.9	8.6	Feb	6.5	7.0	Feb§	-3.3	-1.6	7.6		100	3.77	nil
Egypt	4.4	Q3	na	3.0	32.0	Feb	19.2	7.2	Q4§	-2.9	-6.5	na		na	30.9	-40.0
Israel	2.8	Q4	5.6	2.9	5.2	Feb	3.8	4.3	Jan	3.9	-2.0	4.0		172	3.62	-11.1
Saudi Arabia	8.7	2022	na	2.8	3.0	Feb	2.2	5.8	Q3	6.5	1.6	na		na	3.76	-0.3
South Africa	0.9	Q4	-4.9	1.3	7.3	Feb	5.1	32.7	Q4§	-1.9	-4.5	10.0		21.0	18.3	-19.0

Source: Haver Analytics. *% change on previous quarter, annual rate. †The Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. **Year ending June. ††Latest 3 months. ‡‡3-month moving average. §§5-year yield. †††Dollar-denominated bonds.

Markets

In local currency	Index Mar 22nd	% change on: one week	Dec 30th 2022
United States S&P 500	3,937.0	1.2	2.5
United States NAScomp	11,670.0	2.1	11.5
China Shanghai Comp	3,265.8	0.1	5.7
China Shenzhen Comp	2,098.4	0.8	6.2
Japan Nikkei 225	27,466.6	0.9	5.3
Japan Topix	1,962.9	0.1	3.8
Britain FTSE 100	7,566.8	3.0	1.5
Canada S&P TSX	19,532.8	0.8	0.8
Euro area EURO STOXX 50	4,195.7	4.0	10.6
France CAC 40	7,131.1	3.6	10.2
Germany DAX*	15,216.2	3.3	9.3
Italy FTSE/MIB	26,523.3	3.7	11.9
Netherlands AEX	741.8	3.5	7.7
Spain IBEX 35	9,009.3	2.9	9.5
Poland WIG	56,989.8	0.3	-0.8
Russia RTS, $ terms	980.0	4.6	1.0
Switzerland SMI	10,782.3	2.5	0.5
Turkey BIST	5,001.1	-2.4	-9.2
Australia All Ord.	7,200.7	-0.9	-0.3
Hong Kong Hang Seng	19,591.4	0.3	-1.0
India BSE	58,214.6	1.1	-4.3
Indonesia IDX	6,691.6	1.0	-2.3
Malaysia KLSE	1,412.0	0.6	-5.6

	index Mar 22nd	% change on: one week	Dec 30th 2022
Pakistan KSE	40,376.1	-3.6	-0.1
Singapore STI	3,221.0	1.5	-0.9
South Korea KOSPI	2,417.0	1.6	8.1
Taiwan TWI	15,760.5	2.4	11.5
Thailand SET	1,585.1	1.3	-5.0
Argentina MERV	224,914.6	7.2	11.3
Brazil BVSP*	100,220.6	-2.4	-8.7
Mexico IPC	52,550.4	0.9	8.4
Egypt EGX 30	15,253.2	3.6	4.5
Israel TA-125	1,740.9	1.7	-3.3
Saudi Arabia Tadawul	10,350.5	3.0	-1.9
South Africa JSE AS	75,243.4	3.2	3.0
World, dev'd MSCI	2,686.1	1.8	3.2
Emerging markets MSCI	961.5	1.5	0.5

US corporate bonds, spread over Treasuries

Basis points	latest	Dec 30th 2022
Investment grade	161	154
High-yield	519	502

Sources: Refinitiv Datastream; Standard & Poor's Global Fixed Income Research. *Total return index.

Commodities

***The Economist* commodity-price index**

2015=100	Mar 14th	Mar 21st*	% change on month	year
Dollar Index				
All Items	157.5	155.4	-3.6	-18.3
Food	139.3	139.0	-3.8	-15.6
Industrials				
All	174.6	170.7	-3.4	-20.2
Non-food agriculturals	122.7	124.2	-1.6	-31.6
Metals	190.0	184.5	-3.8	-17.5
Sterling Index				
All items	198.0	194.5	-4.0	-11.2
Euro Index				
All items	162.9	160.0	-4.4	-16.4
Gold				
$ per oz	1,904.2	1,946.3	6.0	1.4
Brent				
$ per barrel	77.5	75.2	-9.5	-34.8

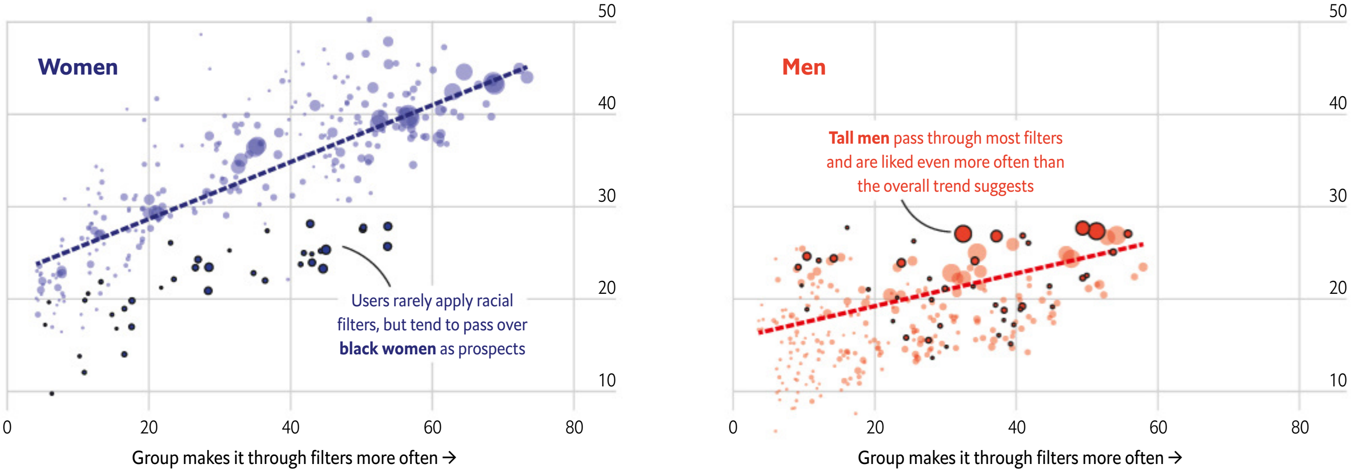
Sources: Bloomberg; CME Group; Cotlook; Refinitiv Datastream; Fastmarkets; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Urner Barry; WSJ. *Provisional.

For more countries and additional data, visit
economist.com/economic-and-financial-indicators

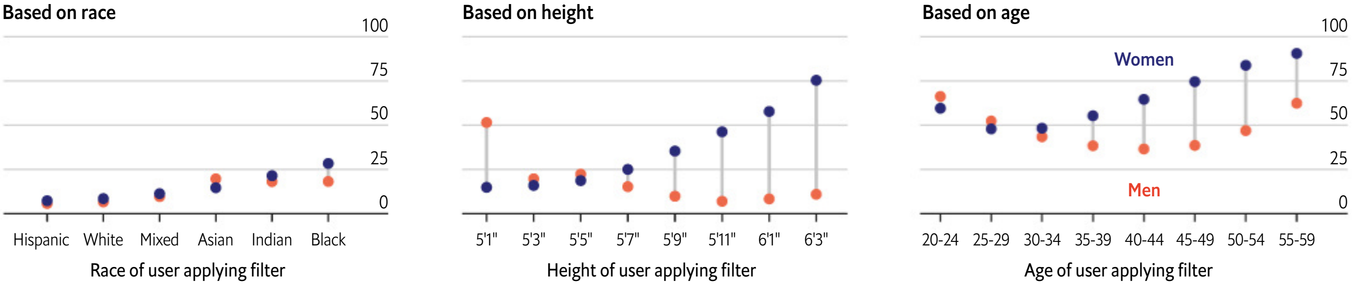
→ **The more groups get filtered out, the less they are liked by people whose filters permit them**

How often groups are liked v how often they make it through filters, %

By sex, race, age group and height, bubble size=number of users, The League dating app, Jan 2023



Share of possible matches filtered out, %



Source: The League

New platforms, old habits

Online daters are less open-minded than their filters suggest

One of the biggest differences between online dating and the old-fashioned sort is the size of the pool. The number of people using dating apps dwarfs offline social networks. So sites offer filters that let users exclude unwanted groups.

The diversity of tastes among giant user bases should make apps a haven for people who struggle with dating offline. And data provided by The League, an American dating site aimed at educated professionals, show that the strictness of users' filters varies, with many saying they are open to a broad range of traits. However, when users do apply filters, they mostly reflect familiar dating preferences that long predate the internet. And although users with the broadest filters find matches more often, the types of people they end up with mirror the tastes of their heavier-filtering peers.

The League's data cover 80,000 users across ten cities in January 2023. The site chooses pairs of users who pass each other's filters and present them as "prospects". If these users both "like" each other, they can chat. Users see a fixed number of candidates per day. This makes it possible to distinguish explicit dating desires (filters) from implicit ones, revealed by how often users like their prospects.

Filtering choices follow demographic patterns. Women block 70% of potential matches, compared with 55% for men, mostly because they tend to exclude users who are shorter or younger. Whereas women 5'5" (165cm) or shorter eliminate just 17% of people based on height, those 5'10" or taller remove 45%. And women in their 50s filter out 86% of users based on age, compared with 48% for those aged 25-34.

Because users with strict filters weed out most unsuitable people pre-emptively, you might expect them to like many of the remaining candidates. But the data show the opposite. For both sexes, the share of prospects liked by the 10% of users with the tightest filters is 11-13 percentage points lower than by the 10% with the broadest ones. This probably stems from overall pickiness. People looking for a specific type of partner can filter out many weak candidates, but can select based on other criteria, such as looks, only one by one.

Users might find matches more often if their filters better reflected their tastes. One of the best predictors of whether someone will like a prospect is how often other users filter out that prospect's demographic group. For example, men 5'5" or shorter get through only 7% of other users' filters, compared with 33% for taller men. Moreover, just 13% of users whose filters allow such short men fancy them when they are presented as prospects—just over half the rate at which taller men are liked.

Such differences are even more striking when it comes to race. Users deploy racial filters sparingly. For example, black women pass through 36% of other users' filters, compared with 44% for women of other races. This gap is similar to the effect of one inch of height for men. However, just 24% of black women are liked as prospects, versus 37% for non-black women—an impact as great as 11 inches of male height.

This suggests that many users who decline to filter out black women often still pass them over at the prospect stage. Singles might find better matches if they gave a chance to more of the candidates whom they claim to be open to dating. ■

Good vibrations

Jacqueline Gold, builder of the Ann Summers empire, died on March 16th, aged 62

THE PARTY wasn't one Jacqueline Gold would normally have gone to. It was in a council flat in Thamesmead, a dreary estate out on the estuary. She was used to more select Biggin Hill farther south, where she grew up in a big detached house with a pool and a view over rolling fields. But in 1981 she went to Thamesmead with a friend, to a Pippa Dee party, where women got together to buy clothes. Home-selling had been a craze for a while, starting with Tupperware, where bored housewives sold each other countless plastic bowls and jugs to get commission and free gifts. Pippa Dee parties were a bit more fun than that.

This one certainly was. For a start, men were banished to the shed or the pub. The wares were interesting, with quite a lot of lingerie in decent fabrics. Then the wine came out, and the women started to play games. In one, she was asked to draw her husband's "meat and two veg" off the top of her head. The room was in peals of laughter. They all knew she was handling the payroll for the four run-down Ann Summers sex shops which her father David had acquired. What about an Ann Summers party? someone said. It sounded a great idea.

Things couldn't go on as they were. Many women wanted to spice up their marriages, but wouldn't venture near the blank windows of a sex shop. She wouldn't dream of it; she was shy enough, painfully shy, as it was. The customers were almost all male and seedy, the dirty-mac brigade, and they bought the sorts of things they, not their wives, thought sexy: slutty, scratchy underwear in red and black nylon, or sky-blue nylon baby-dolls. Women were silently fed up with this, and something had to change.

In middle-class Biggin Hill she tried her idea out. She held a girls-only party to which, casually, she also brought sex toys. After lingerie time, she switched the toys on and passed them round. The women had never seen such items before. They were giggly, nervous and excited, all at once. Clearly, there was a market there. Into the 2000s she built that hunch up to a peak of 13,000 party hosts (during covid, on Zoom, ardour multiplied), around 150 high-street-worthy shops, a racy online presence and a turnover of £150m a year. Women in Britain had been freed to have the sex lives they wanted, without necessarily involving a man at all.

Of course men, even in 1981, took some convincing. When she presented her idea to the Ann Summers board, all middle-aged males in grey suits, they were scornful; she was only on work experience and paid less than the tea lady. One member complained that women weren't even interested in sex. But her father supported her, giving her £40,000 to take the company where she wanted. It was a big change of heart for him, a man who had clawed his way up from East End rags to riches, and who cried when she was born because she wasn't a son who could carry on his businesses after him. Well, surprise, that was just what she could do.

So off she went, placing ads for party hosts in the *Evening Standard* and driving regularly to the Strand Palace hotel in her mustard-yellow Mini to hold recruiting seminars. She found 500 in a year, bold stuff, since to the authorities this was still illegal sex work. In Bristol, at a trade show, she was arrested and told to close down her stall. Job Centres refused to let her advertise her vacancies, until a judge ruled in her favour. In Dublin, when she opened her "pleasure emporium" on the sacred site of O'Connell Street opposite the Post Office, she was sent a bullet in the post.

She defused the opposition, first, by being herself. She was not some intimidating over-made-up madam but a small, pretty woman with long brown hair and an easy, open smile. Setbacks simply encouraged her. The party atmosphere spread from suburban living rooms to the shops, where mannequins in micro-underwear filled the windows, and where browsers could find strip-search-policewomen's bustiers up to size 24, fake-silk suspenders, popping candy choco willies, Kama Sutra position cards and almost anything else in that line. She leapt quickly on trends. After the Rampant Rabbit vibrator featured in "Sex and the City" on TV, vibrator sales reached 2.5m a year, and during the "Fifty Shades of Grey" craze she brought in bondage starter kits. Three-quarters of her customers were women and 70%, she reckoned, were ABC1s, upper-middle-class professionals who found it daring, in a good way, to go through those doors.

Ambition and enjoyment drove her, but there was another motive. To sell sex as fun was a way of reclaiming the worst years of her life, when sex had meant only misery. Her upbringing had been comfortable, but she was a funny little child, fussy about food and not much loved. Her stifling mother kept her away from the street and from friends. When she was 12, her mother began an affair with David's best friend John. It was carried on in John's house after her mother had picked her and her sister up from school; they would be dumped in the garden to wait, often in the cold, while the couple cavorted inside. When her mother got divorced John became her stepfather, a terrifying figure who would watch her in the shower and as she slept, and did everything he could to her short of penetration. At 15 she managed to tell him to stop and, surprisingly, he did. But sex for her had become what the shops of the time offered: a furtive, sordid thing. Marriage, at 20, improved her view of it, but by then she was beginning to pour her energies into the lacy, thrilling empire she was building.

She had not nearly finished the job when breast cancer first attacked her, in 2016. In that very year she was awarded the CBE for services to enterprise and women in business, but there was plenty left to do. Empowering women in both bedroom and boardroom was her aim, but though the bedroom was now a gloriously open playing field, the boardroom lagged behind. Again, she drew on her own experience to explain it. Girls, she said, were brought up to be perfect, and boys to be brave. Most men therefore believed they could do anything; women too often felt they fell short. It would take time to change the attitudes laid down over millennia. But she had given them a satisfying push in the right direction. ■

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